Report of the Public Review Panel
on the Government of Canada Moratorium on Offshore Oil and Gas Activities in the Queen Charlotte Region British Columbia

Prepared for the
Minister of Natural Resources Canada

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Rapport du Comité d'examen public relativement au moratoire du gouvernement du Canada visant les activités pétrolières et gazières extracôtières dans la région de la Reine-Charlotte, en Colombie-Britannique

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The opinions expressed in this report are those of the Public Review Panel to provide advice to the Minister of Natural Resources Canada. They are not necessarily the opinion or policy of Natural Resources Canada.

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29 October 2004

The Honourable R. John Efford
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Review of the British Columbia Offshore Oil and Gas Moratorium
Phase 2, Public Hearings

The Public Review Panel is pleased to submit the attached report pursuant to the Terms of Reference given to the Panel by Natural Resources Canada.

The Public Review Panel,

Roland Priddle Chair	Don Scott Member	Diana Valiela Member

Canada

ABSTRACT

BACKGROUND

The Public Review Panel (the Panel) was established to hold public hearings to obtain the views of British Columbians on matters relevant to the federal moratorium on oil and gas activities, focusing on the Queen Charlotte Region (QCR). The Panel's public process took place between January and August 2004. The Panel's Terms of Reference (ToR) require it to submit a report to the Minister of Natural Resources Canada, which is to outline the work carried out, summarize the views of participants, provide the Panel's evaluation of those views and present its conclusions and recommendations.

THE WORK CARRIED OUT

Section 1 describes how, starting in January 2004, the Panel held planning meetings in communities most likely to be affected, to provide information on the Panel's process and to receive input to it. The public process consisted of oral presentations at hearings in ten different locations and written submissions from all of B.C. Oral presentations and written submissions were given equal weight. In indicating relative support for views and issues, the Panel conducted a "head count". Each of the following was considered a single submission: an oral presentation; a written submission including emails; a letter; and each signature on a ballot, petition or letter. Where a participant contributed through more than one submission, these were collectively considered a single submission. The Panel concluded the public phase of its work in August 2004 by receiving written comments on the information previously submitted.

THE VIEWS SUMMARIZED

Section 2 gives an impression of the views of British Columbians who took part in the Panel's process, although the only definitive record is the 22 volumes of hearing transcripts and 13 volumes of written submissions.

Overall, 75% of all participants wish to keep the moratorium and 23% wish to lift it.

The data are broken down by each of three geographical areas of B.C., namely the QCR, other coastal areas (essentially central and southern Vancouver Island including Victoria and the mainland south coast including Vancouver), and other communities in B.C. (essentially all of non-coastal B.C.). Table 2-1 displays the views of all participants. Table 2-2 shows the breakdown between individuals and participants other than individuals. Table 2-3 shows the positions of four groups, namely First Nations, environmental groups, local governments and business interests. There are differences in views as between individuals and among groups by geographical areas.

Narrative summaries, necessarily selective, are provided of views heard at each hearing location and of written submissions by each of the three geographical areas. A majority of participants focused on matters of particular concern to them and the major issues raised, for example environmental effects and First Nations matters, are summarized from presentations and submissions under twelve headings in Section 3.

THE VIEWS EVALUATED

Section 4 evaluates the views first in general terms; second, in relation to considerations consistent with the Cabinet Directive on Strategic Environmental Assessment (SEA); and third, in relation to seven considerations consistent with the principles of *Canada's Oceans Strategy*, in both cases as set out in the Panel's ToR.

CONCLUSIONS PRESENTED

The Panel concludes in Section 5 that the strongly held and vigorously polarized views it received do not provide a ready basis for any kind of public policy compromise at this time in regard to keeping or lifting the moratorium. It formed the impression that there had been little recent dialogue among stakeholders and that increasing this dialogue could be helpful. The need to address First Nations interests and concerns was the major area of near consensus. Ecosystem protection was a widely shared priority, but there is fundamental disagreement on how it could best be achieved: by keeping the moratorium, or by lifting it and relying on a modern regulatory regime.

There was near consensus among participants that there are significant information gaps regarding biophysical data and environmental and socio-economic impacts information for the QCR, were oil and gas activities to proceed. However, participants wishing to keep the moratorium consider it unsafe to lift the moratorium prior to filling those gaps, while participants wishing to lift the moratorium are of the view that the only way to fill those gaps is to lift the moratorium. Information gathering and consensus building activities would serve to reduce areas of disagreement.

RECOMMENDATIONS

The Panel in Section 6 sets out for the Government of Canada's consideration options ranging from: keeping the moratorium (Option 1), which would be supported by 75% of those who took part in its process; to keeping the moratorium or deferring the decision on it while undertaking a suite of activities and taking a decision at a future time (Option 2); to lifting the moratorium and undertaking a suite of activities prior to accepting any oil and gas activity applications (Option 3); and to lifting the moratorium (Option 4) which would be supported by 23% of participants. The Panel had not specifically asked participants for views on Options 2 and 3, where the issues in regard to doing further work include: the activities to be pursued; the parties to be involved; and the process for that involvement. In addition to considering these options, the Panel considers that any further studies related to the moratorium should give particular attention to the following matters: environmental effects; fisheries; information issues; technology; hydrocarbon resources; regulatory regime; protected areas; alternative energy sources; the Kyoto Protocol; cultural values; and social and economic impacts. The need to address First Nations concerns is of central importance.

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1. INTRODUCTION

1.1 Acknowledgements

The Panel thanks the approximately 3,700 British Columbians who have taken the time and have had the interest to share their views with the Panel as part of this process. The Panel further thanks all the people in the coastal communities who have provided assistance to the Panel and its staff in undertaking this review.

1.2 Overview

The task assigned to the Panel was in part to report on the views of British Columbians with particular emphasis on communities in the Queen Charlotte Region (QCR), which are those most likely to be affected by any decision regarding the moratorium. It tried, where reasonably possible, to quantify submissions on the basic issue of keeping or lifting the moratorium. The results of this quantification are summarized in Section 2.1. It also sought to reflect the prevalence of certain views.

The views of most participants, due to the nature of positions taken regarding the moratorium, focused on issues of primary concern. Twelve major issues were identified in the views. These are summarized in Section 3, Major Issues.

This Report, together with the Royal Society of Canada's "Report of the Expert Panel on Science Issues Related to Oil and Gas Activities, Offshore British Columbia" (RSC Report) and the First Nations Engagement Process Report form part of the information available for the Minister of Natural Resources Canada and the Government of Canada's Strategic Environmental Assessment (SEA) regarding the Government of Canada's decision on whether or not to lift the federal moratorium.

1.3 Background

On 28 March 2003 the Minister of Natural Resources Canada, in response to a request from the Government of British Columbia, announced that the Government of Canada would proceed with a review consisting of:

- A science review, undertaken by the Royal Society of Canada (RSC), to identify science gaps related to possible oil and gas activity offshore of British Columbia (B.C.);
- A public review, to be undertaken by an independent three-member panel, to hear the views of British Columbians regarding the broad environmental and socio-economic considerations surrounding the question of whether to keep or lift the federal moratorium on oil and gas activities in the QCR; and
- A First Nations Engagement Process to explore issues of unique interest to First Nations.

The moratorium refers to oil and gas activities in the QCR. It is an aspect of the moratorium on all oil and gas activities on Canada Lands offshore B.C. that was imposed by the Government of Canada in 1972. That broader moratorium was an extension of a moratorium on crude oil tanker traffic through Dixon Entrance, Hecate Strait and Queen Charlotte Sound imposed in 1972 due to concerns over potential environmental impacts.

Further details pertaining to the history of the federal moratorium, the Government of B.C.'s request for a review, the science review and the First Nations Engagement Process are set out in the Terms of Reference "Public Review of the British Columbia Offshore Oil and Gas Moratorium" (ToR) (see *Appendix A1*) issued by Natural Resources Canada.

The Minister of Natural Resources Canada appointed Mr. Roland Priddle as the Panel Chair on 15 May 2003 and Panel Members Dr. Diana Valiela and Mr. Don Scott on 30 July 2003.

Short biographies of Panel Members are provided in *Appendix A2*.

1.4 Public Review Panel Process

The Panel's process was designed to provide a fair and effective means by which the views of British Columbians, especially those in the communities most likely to be affected, could be heard on the question of whether to keep or lift the federal moratorium on oil and gas activities in the QCR and the broad environmental and socio-economic impacts relating to any decision on the moratorium. First Nations were encouraged to participate in all aspects of the review. The mandated process, set out in the ToR, consisted of information/scoping meetings, hearings and written submissions. For transparency, the Panel made available all materials that would be considered in preparing the Panel's Report on both its website[1] and in hard copy at 15 locations around the QCR and in Vancouver and Victoria. The Panel also expanded on the process to include an opportunity to comment on these materials.

Counting the oral presentations, written submissions, ballots and petitions, the views of nearly 3,700 participants were presented to the Panel. Approximately 1,400 people attended the hearings with more than 300 making presentations to the Panel and a further 120 posing questions to the presenters. Approximately 3,540 written submissions from British Columbians were received by the Panel. Of these, 1,782 were ballots or petitions. The Panel received 30 comments on the material that was included in the written and oral submissions.

Contacting British Columbians

Prior to the planning sessions the Panel compiled a contact list of those who had participated in previous reviews together with other groups and organizations that were likely to be interested. As the Panel's work proceeded, those who participated in the planning sessions, or who made submissions to the Panel were added to this contact list. By the comment period, there were 1,756 people and organizations on the contact list. This ensured that these people directly received process updates. Notices regarding the process were also posted on the Panel's website and placed in various newspapers providing broad coverage in B.C., with specific attention to papers in the QCR.

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[1] The website, www.moratoriumpublicreview.ca will be accessible until 31st December 2004. After this date, contact Natural Resources Canada to access hearing transcripts and written submissions.

Making Information Available to British Columbians

To make information accessible, information for the planning meetings was posted on Natural Resources Canada's website and was also directly e-mailed to the contact list. Following the planning meetings, process information and materials submitted to the Panel were made available on the Panel's website and in hard copy at 15 repositories *(see "How to Participate", Appendix A3)*. The locations for the repositories were determined based on suggestions received during the planning meetings as to where to place materials to make the hard copies reasonably accessible. The sites selected were primarily libraries with alternate locations being included in the event that there was not a library in the community or the library hours would unreasonably restrict access to the materials.

Special circumstances were also accommodated such as mailing process updates to individuals who requested updates but did not have access to a facsimile or e-mail. A toll-free number was also provided to address any questions that British Columbians had on the process or opportunities to participate.

Planning Meetings

To obtain public input for the planning of the hearings and to allow for an opportunity to meet the Panel, several communities in the area most likely to be affected by any decision regarding the federal moratorium were visited in January and March of 2004. These communities[2] were, in the order visited, Lax Kw'alaams, Prince Rupert, Old Massett, Village of Masset, Queen Charlotte City, Kitimat, Port Hardy, and Kitkatla. Vancouver, as the largest coastal city in B.C., was also included as a location for a planning meeting. These locations were identified as ones that could be reasonably accessed by participants. In response to comments arising at the planning meetings and considerations of accessibility, additional planning meetings were conducted in Bella Coola and Victoria.

Each planning session started with a short presentation providing the context for the review, the work that the Panel had been asked to undertake, and the proposed approach to the meetings to hear views or "hearings". Participants were asked for their suggestions and comments on the approach to the hearings, the scope and nature of potential environmental and socio-economic considerations, the locations for the hearings and where to place hard copies of materials presented to the Panel to provide reasonable access. The slide deck used for the planning meetings was also posted to the website to allow a further opportunity to provide input. In response to feedback the following changes were incorporated to respond to suggestions and to make the review more accessible:

- equal weight was given to both oral presentations and written submissions;
- registrations were accepted up to and during the hearings;
- presenters were not grouped by either topic or position;

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[2] Though a meeting was tentatively scheduled for Bella Bella it could not be arranged and continued efforts to schedule a planning meeting or hearing in the community were unsuccessful. Once the Executive Director for the First Nations Engagement Process was appointed, Natural Resources Canada advised that further efforts to meet with the community could be undertaken as part of that Process.

- in addition to those communities visited for planning meetings, Alert Bay was added to the hearing locations to improve accessibility; and
- daytime, evening, and weekend hearings were scheduled to allow for broader participation and to accommodate travel.

Participants were also asked to provide either a fax number or e-mail address if they wished to be notified directly of procedural updates as the review progressed and to identify other groups that they felt should be notified of the review.

Hearings and Written Submissions

The RSC Report was released electronically on 17 February 2004. Once provision was made to ensure hard copies of the report would be available at specified locations, hearing dates were announced that would allow, at a minimum, a month to examine the RSC Report. Guidelines entitled "How to Participate" *(see Appendix A3)* were made available electronically and in hard copy.

Hearings started in Queen Charlotte City on the 5 April 2004 and finished in Vancouver on the 18 May 2004. There was a total of 20 days of hearings resulting in 22 volumes of transcripts. Hearings were held in Queen Charlotte City, Village of Masset, Prince Rupert, Kitkatla, Kitimat, Bella Coola, Alert Bay, Port Hardy, in that order, and also Vancouver and Victoria. *Figure 1-1* provides a map of the locations visited by the Public Review Panel to hear views. A tragic loss in the community of Lax Kw'alaams coincided with a hearing scheduled in April 2004. This loss, combined with the limited time frame available to the Panel, precluded an opportunity to hear the views of that community. The Lax Kw'alaams Band and Tsimshian Tribes provided their views to the Panel in a written submission dated 15 July 2004. The Panel accepted this submission, although it was received after the closing date for submissions, in view of the aforementioned circumstances.

In April 2004, the Panel became aware of a number of people from outside of B.C. requesting opportunities to make oral presentations and written submissions. The ToR state that the review provides a means to fully explore the issues and views of British Columbians. As a result, on 3 May 2004 "Clarification of Eligibility" (see *Appendix A4*) was issued setting out the Panel's decision that it would only accept oral presentations and written submissions from British Columbians and from parties not normally resident but with business in the Province. In respect of submissions received electronically, it was necessary, in many cases, to follow up with submitters to confirm whether or not the submission was eligible. On 7 May 2004 "Further Guidance to Participants" was issued (see *Appendix A5*).

For scheduling purposes presenters were allocated approximately 15 minutes each for their presentations followed by 10 minutes of questions from the Panel and people in attendance. Flexibility was provided with organizations with several presenters being allowed some additional time if requested and justified in advance. Flexibility was also provided in situations where there were presentations with new information or there were substantive questions from the Panel and attendees. Those presenters registering at the session were scheduled during openings and following the registered presenters.

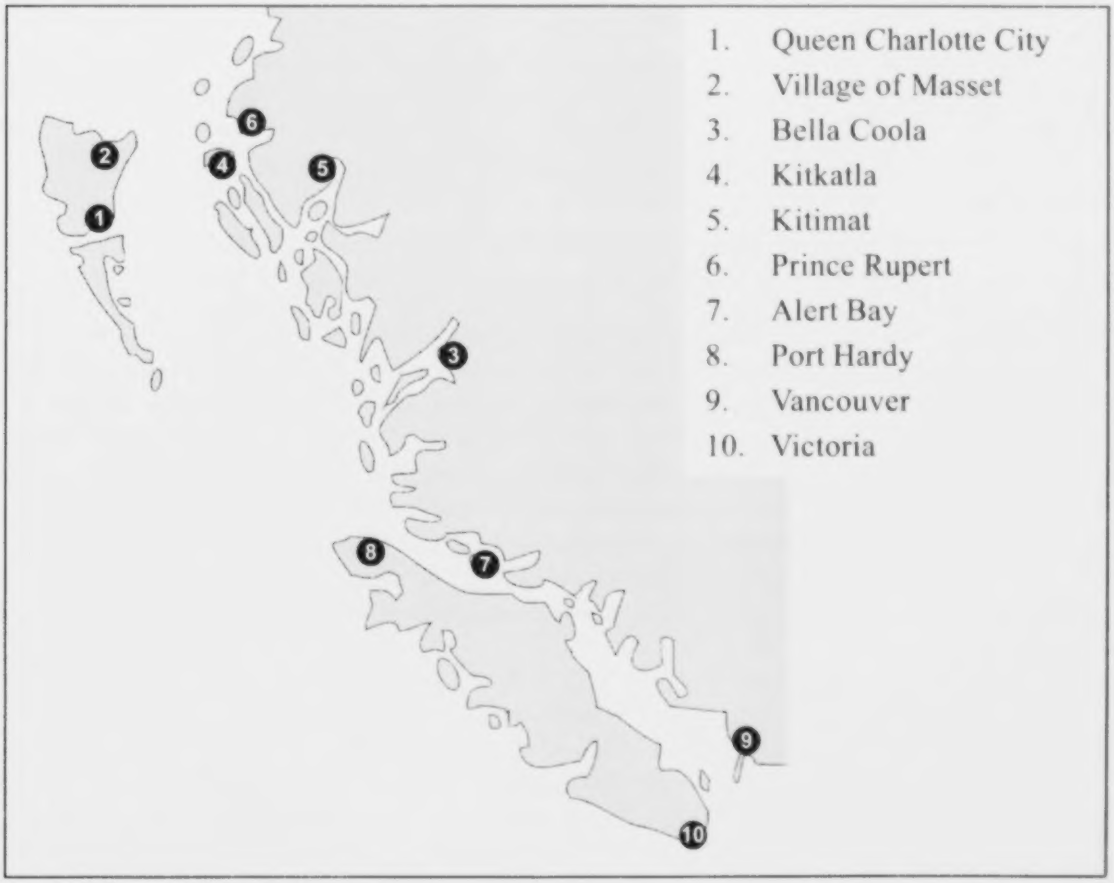
As the available time slots were allocated to pre-registered presenters it appeared that it may be possible that a situation could arise where the Panel would not be able to hear everybody who wished to make a presentation. To allow for written submissions in the event that there was not time to hear from everybody, the original 15 May 2004 deadline was extended to the 25 May 2004, a week after the last day of hearings. The Panel was, nevertheless, able to hear from everybody who was willing to wait for a turn to make a presentation.

Comprehensive lists of participants are provided in *Appendix A6*.

To allow for mail delivery from more remote communities and a number of disruptions resulting from computer viruses, the Panel accepted all eligible written submissions received before 31 May 2004.

Submissions from people residing outside of B.C. that did not meet the business in B.C. criteria were not accepted or provided to the Panel. There were also seven written submissions posted to the website and distributed prior to "Clarification of Eligibility" being issued for which no community name was available.

Figure 1-1 Map of the Locations Visited by the Public Review Panel


1. Queen Charlotte City
2. Village of Masset
3. Bella Coola
4. Kitkatla
5. Kitimat
6. Prince Rupert
7. Alert Bay
8. Port Hardy
9. Vancouver
10. Victoria
1
2
3
4
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8
9
10

Comment Period

In recognition that persons would not likely attend more than one location, the Panel added a comment period to the process. This period allowed those who have presented, made written submissions, or have simply monitored the process, an opportunity to comment directly on the materials presented to the Panel including views on how they feel that the Panel should consider the previously submitted information. Participants were advised of the comment period starting at the planning meetings and in "How to Participate". Once it was certain that all the materials presented to the Panel would be available both electronically and in hard copy at specified locations, the deadline of 6 August 2004 was announced. This was three weeks after the last of the materials would be available. A guidance document "Opportunity to Comment On Information Presented to the Public Review Panel" *(see Appendix A7)*, was forwarded to those on the electronic contact list and made available on the website and at the materials repositories.

Comments that did not relate to the materials presented or previously submitted to the Panel were not accepted. The Panel further did not consider views that were included in comments as the deadline for the submission of views was the 25 May 2004. The Panel used the comments provided in its evaluation of the materials previously submitted.

Considering the Information Provided to the Panel

The ToR state that following the hearings, the Panel shall prepare and submit a report to the Minister of Natural Resources Canada. This report shall outline the work carried out by the Panel, summarize the views of participants, provide the panel's evaluation of those views and present its conclusions and recommendations. This Report has been prepared in response to these instructions.

As set out in the ToR, the review provides a means to fully explore the issues and views of British Columbians. The Panel has interpreted this to also include parties with business in B.C.

In considering the material presented to the Panel, the level of support for various views is one of the matters on which the Panel is reporting to the Minister of Natural Resources Canada. Views have been grouped under three categories, QCR; other coastal areas; and other communities in B.C., and are summarized in Section 2.

In indicating relative support for views and issues, the Panel conducted a "head count" and considered each of the following as a single submission by a person or organization: a presentation, a written submission including e-mails, a letter, and a signature on a ballot, petition or letter. At the request of eligible presenters, the Panel also accepted submissions from guest presenters as part of the former's submission; these were counted together as one submission. Comments were not included in the "head count".

Where a participant contributed to the review through more than one submission or means, these were collectively considered a single submission. To further assist the Minister of Natural Resources Canada, the views of First Nations, governments, individuals, organizations and industry sectors have also been documented separately where available.

1.5 Concerns about the Public Hearings (Phase 2) of the Public Review of the Moratorium

Composition of the Panel

Concerns were expressed that the Panel was biased or that there might be a perception of bias, on the grounds that one member had been a director of a Canadian oil and gas company with offshore activities outside Canada, that a second member is a partner in a Vancouver law firm that has energy and environmental law practices and that a third member when Mayor of Prince Rupert had expressed support for lifting the moratorium.

Some participants also complained that there were no First Nations or environmental advocates on the Panel.

Provision of Independent Information

The view was expressed that the Panel should have the capability to do research and to provide information to the public so that participants could base their views on better information. The Panel explained that it was not an expert Panel and was not resourced to provide information to participants. The Public Hearings component of the Review Process in the view of some put the onus of research on participants, many of whom do not have the time and resources for it and means that participants must rely on information provided by non-neutral participants. It was stated that one notable deficiency was the absence of an independent study of the potential socio-economic impacts of oil and gas development in the QCR.

Timeframes and Lack of Funding

It was stated on behalf of some First Nations, First Nations organizations, environmental groups and individual presenters that this process has been conducted on an accelerated schedule relative to the preparation time and resources required to participate effectively. The absence of federal funding, especially for First Nations, was highlighted. Others said that it was not fair to ask the public to provide opinions and recommendations when they did not have the information to make informed decisions or give informed input. For example the hearings started before the results were available of several studies pertaining to B.C. offshore oil and gas activities. It was recommended that the whole process be slowed down so that necessary longer term scientific analysis can be carried out, for example on abundance and distribution of whales. Concerns were also raised about the coordination with other review processes regarding the moratorium and several participants noted that the communities are suffering from "consultation fatigue".

Panel Hearings at Additional Locations

Statements were made by or on behalf of persons from locations including Bella Bella, Shearwater, Sointula (Malcolm Island), Tofino and Nanaimo to the effect that the Panel should have held hearings in those locations.

The Panel's response was that it was not possible for it to attend at all possible locations. It held hearings at eight QCR locations as well as at Vancouver and Victoria and tried unsuccessfully to arrange hearings at Bella Bella and Lax Kw'alaams.

2. VIEWS OF BRITISH COLUMBIANS

The following summaries are intended to give an overall impression of the views of British Columbians who took part in the Public Review Panel's process by making oral presentations and written submissions.

In the Terms of Reference, emphasis is placed on the communities most likely to be affected by any future decision in regard to the moratorium. To this end, oral presentations and written submissions have been grouped under the categories Queen Charlotte Region, the area most likely to be affected; other coastal areas; and other communities in B.C.

The Panel first heard submissions in eight communities in the QCR, and the relevant summaries are presented below in the order in which those communities were visited. The Panel has provided a separate summary of the views expressed by QCR oil and gas interest owners to bring together in one place views that they expressed at different hearing locations.

In addition the Panel visited B.C.'s two largest coastal communities, Vancouver and Victoria, which also stand to be affected, although because of their size and locations, to a lesser degree. Summaries for these two hearing locations are also provided.

Written submissions, to which the Panel gave equal weight, were received from many areas of B.C. and are summarized below under the three geographical areas.

For the convenience of the reader, separate summaries are also provided setting out views expressed by First Nations who made presentations or written submissions to the Panel, and views expressed by the Government of B.C. at several hearing locations and in written submissions.

Though the Panel has strived to provide summaries, no summary could effectively convey to the reader all the views expressed during 20 days of hearings and in the large volume of written submissions received. Transcribed records of the hearings and written submissions form the definitive record of British Columbians' views as submitted to the Panel. These, together with this Report, have been provided to Natural Resources Canada.

2.1 Overall Summary of Views

This section provides an overview of the views that the Panel heard from participants in this review. More in-depth summaries are provided in subsequent sections.

For the purpose of reporting relative support for positions the Panel conducted a "head count". Even though it was told in several cases the number of people, members or constituents who supported a particular position, the Panel does not feel it can confidently assess the reliability of numerical support for each presentation or submission. Each separate person or organization that made a presentation, a written submission, or signed his or her name to a ballot or petition therefore counts as one submission. The method used to conduct the count is more fully described in Section 1.4, under *Considering the Information Provided to the Panel*.

The views of participants on whether to keep or lift the moratorium are presented in Table 2-1 and show that of the 3,687 participants, 75% stated that they wanted to keep the moratorium while 23% stated that they were in favour of lifting it, and 2% did not state a view. Respective support for keeping or lifting the moratorium among participants in the QCR, other coastal areas, and other communities in B.C. is also set out in Table 2-1.

Table 2-1 Views of Participants on Whether to Keep or Lift the Moratorium

	Total B.C. Participants (3,687)	**Queen Charlotte Region (811)**	**Other Coastal Areas (2,430)**	**Other B.C. Communities (446)**
Keepers	75% (2,759)	64% (518)	82% (1,988)	57% (253)
Lifters	23% (853)	32% (263)	16% (399)	43% (191)
No View	2% (75)	- (30)	- (43)	- (2)

Of the 3,687 participants, 376 participated at the public hearings, 1,761 made written submissions and 1,782 took part by ballot or petition. Of these, 232 participated by more than one method.

Those wishing to keep the moratorium ("keepers"[3])

Some 75% or 2,759 of those participating in the review wished to keep the federal moratorium.

The majority of keepers are of the view that the risks to the environment associated with any oil and gas activity would offset any benefits that might result from the activity. Benefits, if any, to local communities that would be at the greatest risk would be minimal and it would be better for local communities to pursue industries based on alternative energy sources. The majority of these participants were also of the view that oil and gas activities could harm fisheries and tourism industries.

Those wishing to lift the moratorium ("lifters"[3])

Some 23 % or 853 of those participating in the review wished to lift the moratorium.

The views of most of these participants was that the federal moratorium should be lifted so that British Columbians could benefit from revenues, jobs and economic activities that would result from offshore oil and gas, assuming work to address environment, safety and regulatory considerations would be undertaken.

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[3] To economize on wording in this report, and to focus on the messages that participants requested the Panel convey to the Government of Canada, the terms "keepers" and "lifters" have been used to identify those participants wishing to keep and lift the moratorium respectively. No disrespect to participants is intended in selecting these abbreviated forms.

Participants not taking a position on the moratorium

During the process 2% of participants did not express any view on whether to keep or lift the federal moratorium. These people either presented views on issues related to the moratorium or participated for the express purpose of providing information to assist the Panel.

Positions on the Moratorium of Individuals and other Participants

Table 2-2 summarizes the views of participants who to a large extent put forward their views as individuals or as families. These individuals included people who identified themselves as activists, artists, biologists, carpenters, ecologists, economists, elders, engineers, environmentalists, fathers, filmmakers, First Nations individuals, fishers, geologists, grandparents, lawyers, lighthouse keepers, mariners, ministers of religion, mothers, nurses, ornithologists, photographers, physicians, pilots, politicians, professors, schoolchildren, students from colleges and universities, teachers, trade unionists, writers, youth leaders and zoologists.

Table 2-2 Positions on the Moratorium of Individuals and Other Participants by Area

Area and the Number of Participants	Number of Keepers		Number of Lifters		No Position	
	Individuals	Other Participants	Individuals	Other Participants	Individuals	Other Participants
Total B.C. Participants 3,687	2,646 (72%)	117 (3%)	652 (18%)	198 (5%)	63 (2%)	11
Queen Charlotte Region -811	478 (59%)	40 (5%)	216 (27%)	47 (6%)	25	5
Other Coastal Areas -2,430	1,923 (79%)	68 (3%)	295 (12%)	101 (4%)	37	6
Other Communities in B.C. -446	245 (55%)	9 (2%)	141 (32%)	50 (11%)	1	0

Positions of First Nations, Environmental Groups, Local Governments and Business Interests

Table 2-3 summarizes the positions of four further groups.

Table 2-3 Participation of First Nations, Environmental Groups, Local Governments and Business Interests by Area

	Groups Wishing to Keep the Moratorium				Groups Wishing to Lift the Moratorium			
	First Nations	Environmental Groups	Local Governments (No view)	Business Interests[4] (No view)	First Nations	Environmental Groups	Local Governments	Business Interests
Total B.C. Groups	7	29	3 (1)	59 (7)	2	0	36	134
Queen Charlotte Region	6	7	3 (1)	22 (1)	0	0	5	31
Other Coastal Areas	1	20	0	29 (6)	2	0	10	79
Other Communities in B.C.	0	2	0	8	0	0	21	24

2.2 Queen Charlotte Region

2.2.1 Queen Charlotte City Hearing[5]

The Panel heard the views of presenters at Queen Charlotte City on 5 and 6 April 2004. Some 160 persons attended, of whom 31 spoke. In addition, 143 written ballots were signed and presented at the hearing as formal submissions.

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[4] For the purpose of this report, business interests include: commercial fishing industry unions; First Nations fishing organizations; commercial fishing associations; chambers of commerce; boards of trade; trade associations; port authorities; economic development groups; small businesses predominantly involved in the fishing industry and tourism sector; coastal marine industries and consulting firms.

[5] At the Queen Charlotte City hearing on 5 April 2004, the Panel was invited by submitters to attend a feast at the Skidegate Community Hall the following evening. The purpose was to enjoy dinner in a peaceful setting to listen to what (Queen Charlotte/Haida Gwaii) islanders had to say with regard to whether or not to lift the moratorium. The Panel responded that it would be imprudent to take part as it could not consider anything outside of the public hearing sessions and the written materials submitted to it. In order for all British Columbians to have access to all the information presented, the Panel committed to producing and making available transcripts of all hearings. This would not have been the case with the feast. Several persons expressed disappointment that the Panel did not accept the invitation to what was characterized as a traditional way of welcoming people to the islands.

Summary

All the views heard as well as all of the ballots submitted supported keeping the moratorium on oil and gas exploration and development in the QCR. In addition, the ballots opposed seismic testing and exploratory drilling in the QCR and supported an active program to reduce energy use and develop renewable energy resources for the QCR and other regions of B.C. and Canada.

Interests and Concerns

The interests and concerns of presenters in Queen Charlotte City focused on preserving the Islands' extensive use of marine foods and associated way of life, ecosystem integrity, unique biodiversity resources, and unspoiled character.

> *"...this debate centers around values. We value clean water, air and land that supports our livelihoods, quality of life and integrity of our ecosystems. We are not willing to accept the risks of offshore oil and gas development in Hecate Strait and Queen Charlotte Sound regardless of the financial benefits. We urge the government to ensure that these moratoria stay in place."*
> (Transcript volume 1, page 25, lines 19-26.)

There was emphasis on the unique biological nature of the Queen Charlotte Islands area, which includes species of national and international significance such as numerous nesting seabirds, migratory birds, marine mammals, fish, shellfish, marine plants, and marine invertebrates. Species cited in this regard included Ancient Murrelets, Marbled Murrelets, numerous other bird species, Humpbacks, Orcas, and other whales, five species of salmon, as well as herring and halibut. It was stated that some of these species are listed as species at risk, and mention was made of the unique glass sponge reefs in the basin. It was stated that these environments and species are particularly vulnerable to many aspects of oil and gas exploration and production.

Scope and Nature of Potential Environmental Effects

Views of keepers

Potential environmental effects cited as concerns included effects of seismic exploration on a variety of organisms, toxic drilling muds, routine low-grade spills, spills during drilling, flaring of gases, effect of industrial lights on birds active at night, disturbance of noise and pollution from increased boat and helicopter traffic, irreversibility of oil spill damage, risk of major accidents, and climate change from burning of the oil and gas produced.

Severe local conditions hazardous to oil and gas operations were cited, including 25-foot tidal ranges and strong currents, frequent hurricane force winds, funnel-like coastline, and onshore currents said to prevent containment of, and quickly cause contact of oil with unique, marine reserve, and special heritage sites. Waves were said to exceed 22 metres while the industry standard for maximum wave heights withstood by oil rigs was said to be about 15 metres.

Some presenters emphasized that accidents happen in complex systems regardless of technology and filling of scientific gaps. The Santa Barbara oil spill, the Exxon Valdez, and the Ocean Ranger disasters were mentioned and the recent sinking of an oil tanker off the coast of Spain was used as an example that such accidents are not a thing of the past that is now preventable. There was frequent reference to the fact that no one could guarantee accidents would not happen.

Comments included strong criticism of the RSC Report's conclusion which was portrayed as meaning that we can proceed with oil and gas activities without having adequate baseline data and of its omission of the climate change issue.

Scope and Nature of Potential Socio-Economic Impacts

Views of keepers

Regarding socio-economic impacts, exploration and development of offshore oil and gas were said to negatively impact existing industries such as fishing and tourism, to threaten subsistence food gathering that has taken place in the islands for many generations, and to disrupt the social stability of coastal communities. It was doubted that much employment for locals, particularly those from the Queen Charlotte Islands, would result from oil and gas activities. The mayor of Port Clements had visited Eastern Canada offshore oil and gas industry areas and stated that small communities had not benefited economically and had suffered socially and culturally and concluded such development would not help small communities in the QCR.

Mention was made of NAFTA Chapter 11 provisions said to potentially tie government's hands regarding local employment requirements and to make it impossible to re-instate the moratorium once lifted. There was mention of the potential revival of the Canada-U.S. boundary dispute in the Dixon Entrance area if oil and gas activities commenced.

A spiritual and magical cultural dimension to the Queen Charlotte Islands was a strong aspect of the submissions.

> *"I have commercial fished for over half my life, and being on the water is the closest thing to God you will ever get. The life, just being on this Island, is the biggest church you will ever be in. On a clear day, I can see over to Rupert. On a clear day, God forbid, I may see an oil rig. That hurts, that breaks my heart."*
> (Transcript volume 1, page 52, lines 26-30 and page 53, line 1.)

The special nature of the coast of the Queen Charlotte Islands was said to be a priceless world heritage that deserves protection. It was noted that other sensitive coastal areas, such as Florida and California, now also have oil and gas moratoria and that the QCI's coast was at least as sensitive and at least as significant as those areas. Unresolved Haida claims and the fact that the people of the Islands are the closest to potential negative impacts of oil and gas activities were cited as additional reasons to maintain the moratorium in the QCR.

> *"How do you compensate someone for the loss of their way of life, a loss of their culture? Here on Haida Gwaii when the tide is out, our table is set ... if you're unemployed on Haida Gwaii, you can still eat. I think that the world does need special places, and Haida Gwaii is one of them. I would rather not be looking at offshore oil and gas as a way to employ our people, because it doesn't create long-term employment, it's a non-renewable resource."*
> (Transcript, volume 2, page 13, lines 4-6; page 14, lines 6-7, 17-19; page 16, lines 1-4.)

The view was often expressed that it was contradictory for the Government of Canada to consider developing further oil and gas resources having signed the Kyoto Protocol, and these people found it contradictory to the Government of Canada's Fish Habitat Conservation and Stewardship Program and the government's position on establishing Marine Conservation Areas. Canada was said to be in the best situation to address the problem of climate change and to set the example of breaking the fossil fuel habit. Presenters urged the government to develop alternative energy sources and energy conservation programs.

Several presenters stressed the advantages of leaving the oil and gas in place, citing growing demand and appreciation in value in the future. One view was that waiting 20 or 50 years makes both economic and environmental sense, since at that time there may be advances such as non-sonic exploration and access of the offshore resources from land by lateral drilling.

There was frequent reference to perceptions that the decision to lift the moratorium had already been made by governments and that this community, which is most affected, had no say in the decision.

> *"This is like the third time someone has been here asking what we think. We keep on saying "no" and no one is listening..."*
> (Transcript, volume 1, page 63, lines 17-19.)

2.2.2 Village of Masset Hearing

The panel heard views of presenters at the Village of Masset on 7 April 2004. Some 100 persons attended and 27 made presentations.

Summary

Except for one person, presenters at the Village of Masset opposed lifting the moratorium. This included Haida individuals on their own behalf, students, a seafood processor, and a councillor on behalf of the Village of Masset. One presenter stated he would be in favour of lifting the moratorium if all environmental and safety issues were addressed but highlighted the gaps in environmental information. He also stated that environmental groups should be the watchdogs in the event government regulations become slack.

Interests and Concerns

Interests and concerns included support for the Haida Nation in its claims to land and water, stating that the Haida, who have been here for thousands of years, should be making the decisions. Many stressed the importance of the sea to the people of the Islands, stating that the ocean is their culture and identity. Other concerns were expressed as to how anyone could compensate the Haida and other residents for removal of their way of life. It was also submitted that the wilderness in the QCR is vulnerable and is going to be more and more of a world treasure.

It was stated that in the past residents have not been heard. The issue goes beyond science. Presenters have little faith that their "no" will be heard and are concerned that the emotional content of their submissions will not be transmitted.

> *"You see, here cash wealth does not matter so much. So long as one knows when the tide is low, one can access food, clams, crabs, seaweed, all gathered with our bare hands, mussels, gooseneck barnacles, all free, freely given by the mother of all life. Oil and gas and the greed, power and corruption stands in sharp contrast to this, and that is a fact. Never, ever, should the moratorium be lifted."*
> (Transcript volume 3, page 88, lines 25-30, and page 89, lines 1-2.)

There were frequent statements that: the government should promote alternative energy sources and energy conservation instead of offshore oil and gas; there is a need for an oil and gas conservation law instead of lifting the moratorium; it is insane to lift the moratorium having signed the Kyoto Protocol; the government is considering a marine protected area around Haida Gwaii and this is inconsistent with lifting the moratorium; lifting the moratorium is contrary to the precautionary principle; NAFTA Chapter 11 might prevent the moratorium from being put back in place if it were to be lifted and, if it is put back in place, the government may have to pay huge compensation.

Concerns were expressed regarding the moratorium public review process, its ToR, and the Panel composition.

Scope and Nature of Potential Environmental Effects

Views of keepers

Statements were made that there are important gaps in environmental information. Potential environmental effects of oil and gas activity were cited including the concern that the use of the resource would increase greenhouse gas (GHG) emissions and that the extraction itself would create GHG emissions and cause rising ocean levels from global warming.

There was emphasis on the unique and invaluable role of the habitat and food sources in the Queen Charlottes and Hecate Strait areas for innumerable migratory bird populations and species of international importance. Compensation for environmental damage is not possible, it was said.

It was stated that: abalone, clams and chitons were much more plentiful previously and would suffer additionally with oil and gas development; low-level chronic pollution is more damaging than a one-time spill; fish larval numbers would be affected by seismic and other oil and gas activities; and adequate studies have not been made.

Hecate Strait is a narrow area. The RSC Report suggests a 20-km buffer for exploratory drilling and a 10-km buffer from shorelines for seismic exploration. It was said that this would not be enough, as there have been observations such as large groups of birds feeding on krill more than 45 km from shore. The RSC Report, it was asserted, also said the oil and gas industry could carry out activities from October through March because during that time there was nothing out there. However, presenters submitted that bird feeding is at highest levels in February when herring are spawning. They further submitted that there are incorrect statements regarding bird populations in recent government-sponsored reports. There was frequent mention by presenters that the RSC Report conclusions do not match the reviewed facts and that important potential impacts were omitted.

It was stated that wave conditions in Hecate Strait make it unsafe for oil rigs, and that the area is one of the world's most seismically active. It was also stated that a spill is inevitable and that with the prevailing local currents the oil would drift to shore affecting the coastline for decades to come. There was reference to the Santa Barbara drilling rig blow-out and resulting oil spill. It was noted that, though there are 24 rigs working offshore California, there is now a moratorium on further rigs.

Scope and Nature of Potential Socio-Economic Impacts

Views of keepers

It was stated that hydrocarbons are important not only for energy production but also for industrial processes ("oil is too valuable to burn") for future generations. Lifting the moratorium forecloses options for development of alternatives.

Presenters were of the view that there is a need to enhance the Islands' economy based on food, tourism, sustainable logging, commercial and recreational fishing, whale watching, clam digging, food preparation, and spin-offs. It was said there are three seafood processors on the island employing local workers. Investment and support for jobs are also needed.

> *"We often say that we eat like kings here and we want to keep it that way. Haida Gwaii has the potential to be a model of sustainability to the world. This could be the place and the coast where we do things differently, the place where we say "no" to polluting industries, and "yes" to seeking out sustainable alternative energy, and "yes" to protecting tourism values, and "yes" to value-added forestry and fisheries, and "yes" to non-timber forest products, and "yes" to looking after and protecting our earth."*
> (Transcript volume 3, page 77.)

One presenter stated that Prince Rupert wants to see the moratorium lifted; they have depleted our fish and now they want oil. Any benefits of oil and gas have nothing to do with the smaller communities on the Islands, who have the most to lose and the least to gain.

It was stated that even one part per million of oil can taint the taste of shellfish. It was admitted that there is a lot of unemployment, but "we eat like kings and queens". The Haida are teaching children to respect the land and the sea and others come and teach them the opposite.

2.2.3 Prince Rupert Hearing

The Panel held hearings in Prince Rupert on 15 and 16 April 2004. In total about 200 people attended, 31 made presentations and 11 participants asked questions.

The majority of the presenters were individuals from the Prince Rupert area. There was one First Nations presenter. Others were from Smithers, Terrace and Vancouver. There was one presentation on behalf of the Government of B.C. Its views are reported separately in Section 2.6 *Government of B.C.* There were presenters from the oil and gas industry and related interests, one of which also presented at another hearing location. Their views are reported separately in Section 2.2.10 *Oil and Gas Interest Owners*. An oil and gas industry association which presented in Prince Rupert has been included as part of the Vancouver hearing summary. This was done to summarize the views of the two industry associations with business in B.C. in the same place.

Summary

Of those making presentations, ten wished to keep the moratorium and 19 supported lifting it. Positions expressed ranged from vigorous insistence on keeping the moratorium, to allowing offshore oil and gas activity to go ahead if a decision-making body with local community and First Nations representation oversees it, to allowing such activities if First Nations, marine protected areas and the ecosystem are dealt with, to support for lifting the moratorium with the expectation that an appropriate regulatory regime would result in projects for communities to evaluate.

Presenters included individuals, the City of Prince Rupert, economic development groups, environmental groups, fishing industry organizations, First Nations, trade associations and politicians.

Interests and Concerns

The presenters' interests were in such matters as the preservation of the North Coast marine ecosystem, the sustainability of the local fishing economy, the health and growth of the North Coast economy, the involvement and fair treatment of First Nations, the provision of factual information for the Panel, and the provision of balanced information to local residents. The Tsimshian Nation's interest is the assertion of control over sustainable resource use in their territory.

The concerns of keepers were that offshore oil and gas activity could cause severe damage to sensitive coastal resources and related industries; that oil spills could significantly affect major commercial fishing species and impact existing livelihoods; and that government should be directing its resources toward the development of alternative energy sources rather than fossil fuel development. Lifters expressed concerns that if the moratorium is not lifted, then Prince Rupert and the North Coast would not realize their full economic potential, through diversification brought on by oil and gas development, and the opportunity to access lower cost energy for industrial growth.

The Tsimshian Nation has concerns about the need for access to their resources under a joint management regime; for government support to First Nations; for inclusiveness and collaboration with the Governments of Canada and British Columbia and their agencies; and, for a timeline that would provide for capacity development of First Nations research and education.

The Scope and Nature of Potential Environmental Effects

Views of keepers

These presenters expressed concerns about the unknown impacts that introduction of a new marine industry such as oil and gas would have on commercially harvested salmon, herring, groundfish, crab and other shellfish. Potential catastrophic and chronic oil spills, toxic drilling muds and cuttings, contaminated production water and the negative impacts of seismic testing on fish, crab larvae and whales were cited as examples of likely negative impacts.

It was said that the industry would cause atmospheric pollution including toxic substances and GHGs, causing further negative effects. Some presenters stated that dependence on fossil fuels is not sustainable and urged the development of wind energy in the QCR instead of offshore oil and gas.

It was stated that the fishery in Norway is suffering, probably due to the cumulative effects of fishing, fish farming and maybe offshore oil and gas. A representative of a fishing organization emphasized that if there was harm caused to the commercial fisheries resources by oil and gas activities, it would be difficult to attribute the losses back to that cause specifically and receive fair compensation as a result.

A representative of the largest crab fishing organization in the QCR stated that oil and gas development cannot benefit the commercial crab industry, and will put it at risk. Concerns were expressed about seismic testing. To the organization's knowledge, no studies have been conducted on the effects of seismic testing on Dungeness crab or larvae.

Others referred to general government mismanagement of natural resources such as fishing and forestry. Concerns were also expressed about science gaps and the timeframe for carrying out marine environmental studies.

> *"My concern would be that there is going to be a rush job on science and we will get improper information, and that will be almost more damaging than having no information. That is a real concern."*
> (Transcript volume 4, page 144, lines 6-9.)

The Tsimshian Nation said it could only address the scope and nature of environmental effects if there was a fully inclusionary process which would allow First Nations to collaborate and build capacity as the process unfolded.

> Vie "*The Tsimshian Nation has respectfully requested maintaining the current moratorium on oil and gas exploration. It is important to develop plans to resolve outstanding First Nations issues surrounding the Queen Charlotte Basin. The Tsimshian Nation supports the review process, however, in a manner consistent with their full inclusion in realistic timeframes*"
> (Transcript volume 5, page 6, lines 26-30 and page 7, lines 1-2.)

Views of lifters

Most of the presenters who favoured lifting the moratorium expressed views that the existing regulatory and environmental assessment framework will ensure that public consultation and detailed environmental assessments will take place before activities commence. They referred to successful environmental outcomes in other parts of the world where offshore oil and gas has been developed, and the expectation that Canada would adopt best practices in developing a regulatory regime for the B.C. offshore. There was reference made to the conclusions from the RSC Report and the 2002 Government of British Columbia Scientific Review that there are no scientific reasons why the moratorium should not be lifted. Some presenters stated that introduction of oil to the marine environment by the offshore oil and gas industry is small compared to other sources. It was stated that exploration must take place to determine the resource potential. These presenters argued that seismic work has been carried out in other jurisdictions around the world for decades without negative consequences, and that new technology and improved regulations are leading to zero-discharge platforms to mitigate negative impacts from drill cuttings, drilling muds and produced water, as well as improving human safety and environmental standards.

Some stated that improved Canadian regulatory legislation concerning environmental protection and the marine environment has been put in place in recent years.

> "*The regulatory regime that is in place today .... is vastly different than that that was in place before, when the moratorium was put in place...So the regulatory regime in which we are operating is quite different than at the time that the moratoriums were put in place.*"
> (Transcript volume 4, page 190, lines 17-25.)

A presenter on behalf of a gas transmission company said that a regulatory process with a strong tie to local interests is key. Concerning environmental stewardship, it was stated that if the oil and gas industry operates as it has in the past, in a responsible and environmentally sensitive manner, offshore oil and gas resources can be developed.

In connection with the risk of oil spills from tanker traffic, a Master Mariner stated that Canada is a signatory to changes in maritime rules which, by no later than 2020, will result in single-hulled oil tankers being phased out and replaced by escorted, double-hulled and double-engined tankers. He considers that these tankers will be safer than cruise ships.

It was stated that Cook Inlet in Alaska is a jurisdiction where offshore oil and gas has operated for decades with no significant impacts to their wild salmon runs.

> *"Indeed, they [Cook Inlet] still have the largest King salmon fishery in the middle of the Basin. The Kenai Peninsula is about 200-and-some miles long and the rigs are in a very confined area, and the Kenai River is the largest King salmon return run in the world, and it continues to be so."*
> (Transcript volume 5, page 171, lines 18-23.)

A presenter on behalf of the local chamber of commerce said that the State of Alaska intends to start offshore oil and gas activities in the Bristol Bay area, which is well-known for its fishery resources. He also said that the State was invited to do so by a number of native development corporations in Bristol Bay.

The Scope and Nature of Socio-Economic Impacts

Views of keepers

Several keepers expressed concern that the oil and gas industry is not sustainable and would not create many jobs or benefits in the QCR, while the risk to the fishing industry would be unacceptable.

> *"We believe that the economy that already exists on this coast, based on salmon and the ocean environment, is far more important and is sustainable in the long run. [The] oil and gas industry is not, it is short-term. We believe that the risk involved in drilling and just extracting oil and gas in the Queen Charlotte Basin poses a significant risk to habitat and to the wild salmon stocks of this province."*
> (Transcript volume 4, page 22, lines 26-30, page 23, lines 1-4.)

It was one presenter's view that fishing, considered to be a traditional way of life on the North Coast, would be threatened due to reduction of times and areas available for fishing. Some presenters opposed the subsidization of the oil and gas industry, using Hibernia as an example. They argued that there would be more employment and benefits from pursuing alternative energy such as wind and tidal power. One presenter suggested that green energy be subsidized. Another presenter decried the absence of a coastal energy plan. It was stated that there was a need to settle First Nations claims first, and it was inappropriate to raise the expectations of residents of the economically hard-hit communities in the QCR when benefits to them, if any, would likely be several years in the future.

More than one presenter suggested that this process was unfair and that the B.C. government was not being democratic in its strong support for lifting the moratorium.

> *"The process has been unfair, as a lobby group from here had the ear of government right from the beginning. The Provincial Government responded with its pro-industry stance and has asked the Federal Government to consider lifting its moratorium, and so here we are today."*
> (Transcript volume 4, page 42, lines 16-20.)

Views of lifters

Many of the lifters referred to the economic potential of oil and gas development activities, both onshore and offshore, citing the significant improvements in the economies of Norway, the United Kingdom, Canada's East Coast, and Alaska.

> *"Development of the offshore offers considerable potential benefits: the economic potential. Norway has the highest per-capita income in the world and a heritage fund of $140 billion. Newfoundland has seen significant increases in Gross Domestic Product and personal income. B.C. earned $1.9 billion in royalties from onshore oil and gas in 2001."*
> (Transcript volume 4, page 15, lines 7-13.)

The potential for employment, education and training, and new national and international business opportunities arising from the offshore were also brought up by several presenters. There was expectation that oil and gas revenues from production could pay for healthcare, education and other services and budget needs, and perhaps provide funding for investment in alternative energy sources. More than one presenter indicated their desire to reduce B.C. and Canada's dependence on foreign oil from unstable areas such as the Middle East.

The gas transmission company representative stated that new gas supplies would be vital, and that natural gas demand will continue to rise. It was also stated that his company is absolutely convinced that major energy developments do generate significant long-term local benefits.

One presenter strongly emphasized that if the moratorium is not lifted there was the risk of the local economy declining further with potentially resultant social upheaval, increased provincial and federal debt, increased tax burden, and further reductions in medical and other services. It was suggested that scientific baseline studies would benefit other sectors, such as the fishing industry. As well, some presenters pointed out that in other jurisdictions the oil and gas industry has been able to operate without major negative consequences to the fishing industry.

A presenter on behalf of a hotel association stated that the tourism industry will experience positive growth as a result of improved infrastructure derived from the offshore oil and gas industry, and one presenter said that a safely operating offshore industry is a tourist attraction unto itself. One presenter held out that because of restricted access to internationally competitive levels of energy, the North Coast had suffered lost opportunities for industrial expansion.

> *"What is so frustrating for myself and other promoters of economic diversification and development for Prince Rupert and the North Coast is that we already are blessed with an abundance of natural gas, or at least we are told that there is an abundance of natural gas out there. We just cannot access it…The problem is not one of availability, but one of accessibility." (Transcript volume 5, page 73, line 29-30, and page 74, lines 1-10.)*

Although supportive of the development of alternative energy such as wind and tidal power, some presenters stated that there was currently a lack of affordability and mobility of green energy alternatives. The notion of a legacy fund under the control of, and for the benefit of, local communities was also brought up by a presenter.

2.2.4 Kitkatla Hearing

The Panel heard views at a Hereditary and Community Meeting, chaired by the Chief Negotiator, Gitxaala First Nation, on 17 April 2004. Some 40 people were present and fourteen of them spoke.

Summary

The Gitxaala wish to keep the federal moratorium and will not lift their own moratorium at this time. This is because of the potential harmful effects of oil and gas activities on the resources within their territory and their desire to obtain their own information and take their own decisions.

Interests and Concerns

The interests of the presenters, all of whom are Gitxaala, the People of Salt Water, arise because they are the original people of the area who have been there for thousands of years. They depend to a large extent on food resources from the sea, which have long sustained them and they want to protect those resources for themselves and for their grandchildren. The local salmon and shellfish resources are particularly rich.

Their concerns arise because the Gitxaala consider themselves directly impacted by potential oil and gas development and they fear the loss of marine resources vital for their community. The Gitxaala has a marine plan associated with a land use plan which should be completed prior to any decisions on oil and gas. If the federal and provincial governments continue to push for lifting the moratorium, they will need to deal with the Gitxaala, essentially on a government-to-government basis.

> *"The Elders, they used to tell us, 'When the tide goes down, there is a table right there'. We survive on our seafood, shellfish, salmon, and particularly salmon."*
> (Transcript volume 6, page 13.)

The Scope and Nature of Potential Environmental Effects

Views of keepers

The environmental effects of oil and gas activity include damage to the marine resources, and also to the land and the air. Examples were given of the sensitivity of the marine environment. Herring spawning has not taken place in the area since an underwater hydro line was completed to Kitkatla. Also, it is thought that oil found on Campania Island seaweed may have come, about a year later, from the spill in Prince William Sound. Concerns were expressed about the effects of oxides of nitrogen, relating to onshore industrial activity, but potentially arising from offshore rigs. Attention was drawn to severe marine weather conditions in the area and to the fact that it is an earthquake fault zone.

Scope and Nature of Potential Socio-Economic Impacts

Views of keepers

Commercial harvesting of marine species has resulted in the loss of resources for the community's own use and has not brought it any benefits. For example, commercial abalone harvesting by diving has resulted in that resource not being available for use by the Gitxaala. There is concern that in the event oil and gas activity takes place, there could be similar adverse effects. It was stated that seafood and other natural food resources were so abundant during the 1930s that the Gitxaala did not know the Depression was going on. Even now, if somebody does not have a job or food, the community provides for them.

> *"...we take our responsibility seriously as stewards of the land, and that we want to preserve a rich and beautiful future for future generations of Canadians."*
> (Transcript, volume 5, page 71.)

Views on Jurisdiction

In closing remarks, the Chief Negotiator, Gitxaala First Nation, recognized that while the Panel was not discussing (resource) jurisdiction, he nevertheless took the position that all renewable and non-renewable resources are the property of the Gitxaala First Nation.

2.2.5 Kitimat Hearing

The Panel held hearings in Kitimat on 20 and 21 April 2004. In total, about 40 people attended, and 11 made presentations. All the presenters were from the local area, except for one presentation from an environmental consulting firm with offices in Vancouver.

Summary

Three presenters spoke in favour of keeping the moratorium while eight presenters supported lifting the moratorium. Keepers expressed concern about environmental damage, locally and in the QCR, from offshore oil and gas activities. Lifters, including local government and economic development groups, considered that environmental issues could be satisfactorily dealt with by the regulatory process and that there were important socio-economic benefits to be gained. At the same time, the presenters all appreciated the marine setting and natural surroundings that they enjoyed and agreed that these must be protected from environmental harm.

Interests and Concerns

The presenters' interests were in such matters as the protection of the Queen Charlotte Basin from significant environmental harm, the importance of natural resource development to the economies of B.C.'s rural communities, and potential for growth in the value-added petrochemical industry.

The concerns of keepers were that a catastrophic event such as an oil spill could occur, which would lead to devastating consequences for the region, that there would be harmful effects of seismic exploration on commercial fisheries species, and that the expectations that oil and gas activities would be a near-term solution to the economic woes of the North Coast were overblown.

The concerns of lifters were that if offshore oil and gas development were not pursued, then the industrial economies on the North Coast would languish, and the provincial and federal governments would not derive the benefit of revenues for health care, education and other services.

Scope and Nature of Potential Environmental Effects

Views of keepers

These presenters stated that the lack of scientific information about the marine ecosystem must be addressed before the moratorium is lifted and that there is a high risk of potential negative impacts of catastrophic blow-outs and oil spills in the highly valued Queen Charlotte Basin.

In connection with seismic activity, it was stated that we simply do not know what the impacts would be on Hecate Strait; it is a nursery area for halibut, crab and other larvae and there is some science that states that those impacts are considerable and measurable.

Keepers expressed a general lack of faith in the ability of government to implement an appropriate regulatory regime which would safeguard the basin from environmental harm.

One presenter was struck with the amount of misrepresentation from all sides of the issue, and criticized the use of other jurisdictions as a fair comparison to the QCR.

> *"I had one biologist tell me that, in exploring why some people are so concerned about offshore oil and gas exploration on the North Coast of B.C. if God had designed an ecosystem to capture spilled oil and make sure that the impacts linger for centuries, it would look like the North Coast of B.C."*
> (Transcript volume 7, page 40, lines 8-13.)

Views of lifters

These presenters expressed their belief that the regulatory regime would ensure that negative environmental effects would be minimized through a state-of-the-art, best practices regulatory regime. They stated offshore drilling is taking place on all continents except Antarctica; that there are encouraging innovations to enhance environmental safety; that the North Sea and Cook Inlet, Alaska are examples where the climate is harsher than the QCR; and that the Exxon Valdez oil spill should not be used as an argument against establishing a B.C. offshore oil and gas industry, as it was a transportation-related accident. An environmental consultant with East Coast offshore experience concluded that a history of strong environmental regulation in Canada would provide the necessary environmental protection, and that there have been no significant adverse environmental effects from the Canadian East Coast offshore industry.

> *"...there is a history of strong environmental regulation in Canada. Our experience has been on the East Coast, with the offshore Boards and the federal legislation in place, that operators have had to move through gates, approval gates at various stages of projects, and at every gate there is public involvement and at every gate there is a thorough analysis based on the existing science and new science of what the impacts might be, could be and are, and there has been involvement of many stakeholders at every stage of that process."*
> (Transcript volume 8, page 23, lines 7-16.)

Concerns of local government included: the completion of a regional seismic exploration program, onshore and offshore, to determine if a commercially extractable resource exists; commencement of scientific baseline studies; and the establishment of marine protected areas with appropriate local consultation.

Scope and Nature of Socio-Economic Impacts

Views of keepers

It was one presenter's view that because timelines are considered to be so long to arrive at oil and gas production, the provincial government has unduly raised the expectations of North Coast residents that this industry will save their suffering economies. Doubts were expressed as to the amount of recoverable oil and gas, which would have implications for economic viability of any project. Another presenter discussed the perceived unsightliness of oil rigs in a natural setting and the desire to change from fossil fuel dependency to alternative energy technologies. One presenter alluded to pressure from the United States for continued oil supply.

> *"And then I think here we are in one of the most beautiful, pristine coastal environments in the world, and we are under pressure to join the great addiction and whether that be the addiction of use which we are already involved in or the addiction of supplying to somebody else, it is part of the same process."*
> (Transcript volume 7, page 56, lines 4-9.)

A presenter stated that the expectations of the people of the North had not been raised in a reasonable way and that this was a failure of leadership.

Views of lifters

The District of Kitimat said that local government supports natural resources development, emphasizing that they play a significant economic role in rural Canada, and it was expected that the regulatory regime would enhance the cultural and social benefits to First Nations and other coastal communities.

> *"Canada, B.C. and coastal First Nation governments, as environmentally and socio-economic conscious levels of government, have the ability to put into place a state-of-the-art regulatory regime. Environmental sustainability is attainable, as is the ability to maximize value creation for citizens. There is opportunity for both cultural sustainability and employment from the use of natural resources, and particularly from the processing and manufacturing of our natural resources."*
> (Transcript volume 7, page 5, lines 10-18.)

It was also argued that exports of oil and gas are important to the B.C. and Canadian economies, that natural resources are generally produced in rural B.C., and that the potential benefits from offshore oil and gas development are too great to ignore. As well, it was stated that the West Coast of Canada should be afforded the same opportunity to have an offshore oil and gas industry as the East Coast. Other presenters gave views that a new offshore industry would address the need for more jobs in rural B.C. It was stated we should be supporting the petrochemical industry, and that energy policy should maximize employment by encouraging value-added energy use. It was said on behalf of the District of Kitimat that the community was built as the result of the establishment of an aluminum industry and there was a sense of pride that a pulp and paper mill and a methanol plant had followed resulting in an industrial cluster. It was also stated that a new offshore industry could provide more effective and less costly energy in rural areas such as the Queen Charlotte Islands.

One speaker proposed a legacy fund from offshore oil and gas revenues, and that there was an opportunity to move forward into a modern economy using innovation and skill capacity development driven by a new offshore industry. It was posited that if left unexploited, oil and gas resources will eventually become useless or of little economic value.

2.2.6 Bella Coola Hearing

The Panel heard views of presenters in Bella Coola on 5 and 6 May 2004. Some 80 persons attended and 20 made presentations

Summary

All the presenters in Bella Coola spoke in support of keeping the moratorium on oil and gas exploration and development in the QCR. The Nuxalk Nation wished to keep the federal moratorium and will not lift its own moratorium at this time. Other residents in the Bella Coola area who expressed views also wish to keep the federal moratorium.

Interests and Concerns

The presenters' interests are those of marine-based communities. Their concerns are that they want to ensure that the ocean resources are protected. In particular, the First Nations want to safeguard their traditions and cultures as people whose land and waters are interconnected.

The Nuxalk Nation is primarily concerned about high environmental risk for the marine resources so important to their day-to-day lives, unsettled ownership and jurisdiction over lands, water and resources and the belief that there will be little or no socio-economic benefits returned to them from offshore oil and gas activities in the QCR. Although the Nuxalk Nation is not participating in the treaty process, its position is that offshore oil and gas activities not be considered until treaty settlements are reached with all the First Nations who would be affected.

In addition to supporting the Nuxalk Nation's interests and concerns, other residents in the Bella Coola area expressed similar concerns as others in the QCR who wish to keep the moratorium. The two general themes were that the environmental risks of offshore oil and gas activities are too great, and that small coastal communities such as theirs would receive little if any benefit.

The Central Coast Regional District stated that it would not take a position on the moratorium, because it does not have enough information, and it has not consulted enough with the citizens to speak on their behalf.

The Scope and Nature of Potential Environment Effects

Views of keepers

The Nuxalk Nation culture speaks to a connectedness between the sea and the land, and between the QCR and the traditional territory of the Bella Coola. Any negative environmental impacts in the QCR will ultimately impact the ecology of its territory.

> *"Again, as one of many hereditary chiefs here, we do not want oil drilling on the Coast because our salmon, our fry, our prawns, our crabs, our halibut are in this big bowl my sister talks about. And we need to protect that."*
> (Transcript volume 9, Page 50, lines 26-30.)

The Nuxalk Nation does not believe that the Governments of Canada and B.C. will implement a regulatory system for oil and gas activity that will provide protection for the marine resources they still harvest in their traditional territory. Reference was made to the recent collapse of the eulachon, steelhead and coho salmon runs, which had returned to their territory for thousands of years, and are so important to their culture and way of life. These were cited as examples of poor fisheries management by the Department of Fisheries and Oceans Canada (DFO).

> *"So now the Royal Society Panel, like B.C.'s Scientific Review Panel, in 2002, basically promises us that there are no known risks or problems to stand in the way of an unprecedented new development like oil and gas. Why should we believe this for a minute, given the sad and mysterious fate of the ooligan?"*
> (Transcript volume 9, Page 9, lines 6-11.)

In addition to supporting the Nuxalk Nation and other First Nations concerns, non-First Nation submitters expressed their own concerns about potential negative environmental impacts to the marine ecosystem caused by seismic testing, exploratory drilling, and cumulative effects of oil and gas extraction. One presenter said that little research has been done on the effects of seismic testing on marine life and toxic drilling muds on the ecosystems of the seabed, and that these issues were not addressed satisfactorily by the RSC Report.

Fishers and others spoke of storms, strong currents and earthquakes in the QCR, which could lead to disastrous consequences from an oil spill, whether by tanker or rig blowout.

> *"The Hecate Strait, after having crossed it several times, is one of the snottiest pieces of water on the Coast, and you want to put an oil drilling platform out there. It does not make much sense, because most oil drilling or shipping accidents happen during the foulest of*

> *weather, which is going to spread it far and wide before anybody has a chance to try and do their 15 percent cleanup."*
> (Transcript volume 9, page 53, lines 17 to 24.)

There was a general mistrust of government, and lack of confidence in the regulatory system relied on by the RSC Report. One presenter said that provincial and federal government ministers cut regulations, fast-track approvals and use discretion in enforcement as a result of lobbying from industry, and the depleted capacity of government agencies prevents them from carrying out their regulatory mandate effectively.

> *"There is no environmental security because there is no regulatory security. When our knowledge is this limited and the risks are this high, when the ecosystem values are so critical to other economic activities and to future generations, when drastic and persistent cutbacks have so impaired the ability of public agencies to protect the public interest, then one must come to the conclusion that the only reliable regulatory regime is the continuation of the moratorium."*
> (Transcript volume 9, page 24, lines 3-11.)

The Exxon Valdez oil spill was cited as a catastrophe from which the ecology of Prince William Sound has not yet recovered, and no one wants to take that risk in the QCR.

Scope and Nature of Socio-Economic Impacts

Views of keepers

The First Nations presenters wanted the Panel to communicate directly to the Government of Canada their view that they have not been listened to in connection with many things about their rights, their resources and their territories. Anger and frustration were expressed that their views have been ignored by others, and would not be communicated properly this time either.

> *"I wish I was educated more to say more to you, but I am just a Nuxalk Nation native that is speaking up for the rights of his people and speaking for his people. And for you to give the message back to your boss that lifting the moratorium is only for themselves, it is not for the people of this Coast."*
> (Transcript volume 9, page 43, lines 19-24.)

There was a prevalence of views that there would be few jobs created in the Bella Coola region as a result of offshore oil and gas activities, and that there was little likelihood that many jobs would result in the near- or long-term to improve the economies of the QCR. It was stated that it was the conclusion of a Nuxalk Nation band member, who went on a familiarization visit to the East Coast, that small rural fishing communities would likely not benefit from a new oil and gas industry in the QCR, yet the risks to their cultural and economic existence would be the greatest. Reference was made to the boom and bust nature of the industry, which would not provide stability for coastal communities. It was also stated that there would not be significant royalties paid to government.

Concerns were expressed about a lack of commitment by the government to the Kyoto Protocol and the threat of global warming. It was also said that there was a need to redirect government resources toward the development of sustainable or green energy initiatives such as wind, solar and tidal power. This, it was stated, would produce more jobs than offshore oil and gas development. It was noted that there are moratoria on oil and gas exploration and development elsewhere, such as off the Florida and California coasts, because the waters are too productive and the risks too great.

Presenters talked about the pristine natural beauty of the Bella Coola area, and the years of effort centered on a fledgling tourist industry that has sprung up. It was posited that an oil spill would be devastating to this new initiative.

2.2.7 Alert Bay Hearing

The Panel received oral presentations at Alert Bay on 7 May 2004. Some 50 persons attended the hearing at one time or another, of whom 28 made presentations. These included students from grades 4, 5, 6 and 7 and others from Malcolm Island. About a third of the presenters were First Nations individuals or persons speaking on behalf of First Nations.

Summary

All presenters wished to keep the moratorium. They wanted to preserve their beautiful marine environment from the harmful effects of oil and gas activity, including seismic exploration, oil blow-outs and spills. The loss of salmon resources and the need to restore and enhance them was a major concern. There were low expectations for job creation, especially for First Nations, and there was concern that oil and gas activities would harm food, commercial fisheries and marine tourism.

Interests and Concerns

The presenters' interests are those of marine-based communities that want to keep their ocean clean and healthy so that people can enjoy it and make their living from it. In particular, the First Nations wanted to safeguard their traditions and culture as a coastal people.

Their concerns are that their beautiful communities could be destroyed by an oil spill. They consider that there is an information deficit on important issues related to the moratorium. First Nations are concerned that, against a background of past unjust policies relating to fishing and logging, they cannot count on sound regulation of oil and gas and that their connectedness to the ocean will be further damaged.

The Scope and Nature of Potential Environmental Effects

Views of keepers

The environmental effects of offshore oil and gas activity are generally perceived to be negative.

The oil and gas industry is seen as toxic, polluting and harmful to marine animals and their habitats. There is concern about the damage from seismic exploration and the risk of blowouts and oil spills, considered to be inevitable if production was established. In this regard, the interconnectedness of all areas along the coast was stressed. There are bad memories from a 1973 marine oil spill which affected Alert Bay and the generally unsuccessful cleanup operations that followed. There was concern about the possible adverse effects of oil and gas exploration on artesian water resources.

> *"When the legislation is in place...when the green light is given to the industry to commence their work, there will be no going back. It will be too late. The habitat will be lost and will probably never be recovered in our grandchildren's lifetimes. They will be left with a legacy for which we will be responsible, a silent and toxic ocean, empty of marine life..."*
> (Transcript volume 11, page 101, lines 26-30, page 102, lines 1-4.)

It was noted that local and regional resources, including salmon resources, are largely in a depleted state. Restoration and enhancement programs are underway. However, oil and gas should not be considered until they are restored.

> *"...the consideration of lifting the moratorium comes at a bad time. Help us heal our salmon streams first, and then come back and discuss your question."*
> (Transcript volume 11, page 142, lines 19-22.)

The Scope and Nature of Socio-Economic Impacts

Views of keepers

There were very low expectations about job creation, particularly for First Nations. Concerns included those about: the effect of oil and gas on social sustainability of small First Nations communities; the socially disruptive effects of income differences between "haves" and "have-nots" from oil industry employment; and, the futures of children and grandchildren. Activities expected to be harmed by oil and gas included food and commercial fishing, and eco- and marine-tourism.

> *"There's going to be no jobs for us, absolutely none. There's going to be no benefit for us native people."*
> (Transcript volume 11, page 36, lines 25-27.)

A parallel was drawn between the work of the Public Review Panel and that of Justice Thomas Berger in the Mackenzie Valley Pipeline Inquiry of the 1970s. It was stated that he had recommended that development should be deferred until the Dene and Inuvialuit were able to cope with, and to benefit from, socio-economic and environmental change and when a treaty was in place. Justice Berger's advice was thought to be useful for this region of B.C. as well.

> *"...I do not want the moratorium lifted...children are the future, and it will be our future that will be affected and destroyed if the moratorium on oil and gas is lifted."*
> (Transcript volume 11, page 5, lines 19-23.)

> *"...as the Native Brotherhood, we're opposed, and have been opposed to the oil and gas because of the way of life that we have as First Nations people, this oil and gas would be a detriment to it."*
> (Transcript volume 11, page 96, lines 2-6.)

2.2.8 Port Hardy Hearing

The Panel heard the views of presenters in Port Hardy on 9, 10 and 11 May 2004. Some 100 persons attended, and 34 made presentations. All presenters were from the local area, with the exceptions of two people from the University of Northern B.C., an engineering consultant appearing as part of the presentation of a B.C. MLA, who later presented in Victoria, a university scientist from Victoria who also appeared in other locations; and one person from Nanaimo. The views of a presenter on behalf of the University of Victoria are summarized as part of the *Vancouver Hearing* Section 2.3.1 as he presented at both locations.

Summary

Of those presenters who took a position, 17 wished to keep the moratorium and 15 wanted it to be lifted. Presenters who wished to keep the moratorium included the Kwakiutl First Nation, an environmental organization, a marine mammal researcher and a tourism operator. Presenters wishing to lift included the governments of the Town of Port Hardy, Village of Port Alice, Town of Port McNeill, and the Regional District of Mount Waddington and one economic development organization.

Interests and Concerns

Views of keepers

Two Kwakiutl members, one of whom is a band councillor, stated that they opposed the lifting of the moratorium. Both presenters expressed concerns about issues such as the environmental risk of oil spills and seismic testing, as well as the need for employment for their people. It was stated that any decision on the moratorium would require consent from their people.

It was stated that not enough is know to lift the moratorium and it would be more appropriate to act on the side of precaution and protection of the environment. One presenter stated the necessary conditions to lift the moratorium do not exist: minimal risk, acceptable loss, and a good understanding of what would happen. It was asked why we could not maintain the moratorium in this special area when even parts of the coasts of the United States have moratoria.

> *"This is an international cause because people all around the world expect to see uncontaminated wilderness left on this planet, and this is one of the last pristine wilderness coastlines. It is a great privilege to live here, and with that privilege comes the obligation to preserve it. Let us make sure that happens. Please recommend that we keep the moratorium."*
> (Transcript volume 13, page 204, lines 11-18.)

Reasons given to maintain the moratorium included: lifting the moratorium would inevitably lead to exploration and extraction activities; potential danger to fragile marine ecosystems due to oil spills and seismic testing; lack of accountability from oil and gas companies; lack of accounting of the true costs of continued dependence on fossil fuels, including wars and environmental degradation, especially global warming; and a belief that lifting the moratorium would undermine the development of renewable forms of energy and the shift towards an energy-efficient, hydrogen-based economy.

Views of lifters

It was stated that the resource sectors have suffered and this is mostly felt on Northern Vancouver Island. It was also stated that the economy and employment have changed in B.C. since the moratorium was imposed. It was emphasized that Port Hardy has a legacy of resource extraction and needs to diversify. At the same time, Port Hardy is a fishing community and is striving to build a tourist industry so there is significant concern regarding any negative effects on those industries. Therefore environmental assessment is essential in any oil and gas development.

> *"See that wooden carving? It shows where Port Hardy has gone through in resource extraction. We start with First Nations ... then the commercial fishing, then the logging, then the mining, and then we go into the future. We see offshore oil and gas as just another step into the future. ...Port Hardy [has] prospered from it. ... We are set for the next step of development.*
> (Transcript volume13, page 55, lines 13-19 and 28-29.)

Some expressed frustration that offshore oil and gas activity is taking place elsewhere in Canada and not in the QCR. It was stated that without lifting the moratorium we cannot know if we can develop the resource and its benefits, and that if we cannot benefit locally we should not develop the resource. It was argued that the moratorium is a moratorium on knowledge, since industry will not invest in filling information gaps unless the moratorium is lifted. One presenter, not from the QCR, urged the government to lift the moratorium for all the basins of the Pacific coast.

Scope and Nature of Potential Environmental Effects

Views of keepers

Dangerous, long-lasting effects, and widespread extent of oil spills was illustrated with the Exxon Valdez oil tanker and Nestucca barge spills. Human error, compounded by weather and strong onshore currents, earthquakes and tsunamis, and damage to whales and fish from seismic testing were cited as evidence that it cannot be proven that there is no risk to the environment. It was stated that the question is not if an oil spill will happen, but when it will happen. Oil spills, it was stated, would decimate the herring, which spawn all along the coastline, and form the base of the food chain, thus also decimating salmon and other species. Scientific papers were cited showing that oil and oil residues kill, cause deformities, and reduce the number of offspring in fish, including genetic alterations in pink salmon. It was observed that in Prudhoe Bay after ten years there is still a thick layer of oil under the rocks in spite of millions of dollars spent on clean-up, and what is no longer there has gone into the food chain and the air. There was mention of the statement by an oil spill clean-up company, at the RSC workshop in Vancouver, that if 15% of an oil spill is recovered it is considered a success.

Regarding Cook Inlet, it was stated that there have been 484 small oil spills over 25 years of oil and gas development but, as in the QCR, the baseline information was not gathered, making it impossible to prove the damage. An Environmental Protection Agency study was cited as finding the same pollutants in the subsistence fishery of Cook Inlet as in the drilling muds.

One resident, who was in a boat a few miles away from seismic shoots in the past, stated the sound is sudden, violent, and very disturbing, and not at all comparable to ship traffic noise. He stated sea mammals and herring are greatly affected, impacting from the top to the bottom of the food chain. The RSC Report was cited regarding the lethal and hearing damage effects on fish and marine mammals within a couple of metres of an air gun detonation and other, undetermined effects at greater distances.

> *"...it is inconceivable that seismic exploration can occur in the coastal waters of British Columbia without disrupting the lives of the cetaceans which inhabit these waters. It may well cause irreparable damage to some of them. By no means is everything known about the consequences of seismic exploration for acoustically sensitive animals, but we already know more than enough to invoke the precautionary principle and keep the present moratorium firmly in place. ... For me the choice we are facing is clear: oil or whales. I say whales. And I think that when the people of British Columbia are given the choice, they will agree."*
> (Transcript volume 14, page 96, lines 7-15, and page 102, lines 18-21.)

The risk to the environment was said to be unacceptable because of the remarkable biodiversity, the number of listed species at risk, and the dependence of whales and other animals on this very unique area. It was pointed out that there are important bird and groundfish areas, a lucrative crab fishery, herring spawning areas, whale and salmon migratory routes, and feeding habitats for Gray, Humpback, and killer whales, among others.

Knowledge of the marine environment was said to be unsatisfactory. As examples it was said that although Orcas have been studied for 30 years, we do not know where they go in the winter or what they eat. Invertebrates are even less well known, and new ecosystems were recently discovered in the area. One scientist stated there are species of whales in the QCR all year long, including Humpback whales that are still considered vulnerable and that therefore it would not be possible to use avoidance techniques based on timing for mitigation of seismic exploration. In the Hibernia project area there is acoustic disturbance and whales move away from drilling sites. We do not know what a safe level of sound is for each species of whales and ramping up sonar may not work to protect whales in the area. There appears to be displacement of whales from their feeding areas from sonar. He urged a series of recommendations, including: fund studies to know what marine mammals are in the area, when, and where; identify critical habitats and protect and set aside some areas; decisions should be made based on sound science, and timing and certain assurances are important; and enforcement needs real teeth. It was also stated that there can be reduced secondary productivity and toxicity to zooplankton, benthos, and intertidal organisms from oil and gas activities and spill response resources should be greatly enhanced.

The RSC Report was said to be reckless in emphasizing many gaps in knowledge, in identifying physical and biological risks, and in citing the precautionary approach repeatedly, and yet concluding research can be carried out after lifting the moratorium. The RSC Report was criticized for going outside the bounds of science and its ToR in its conclusions on the moratorium; for saying we must identify the important species while all species are important; for saying we must prepare for an oil spill, which was said to imply it is expected to happen; for not having accurate up-to-date climate information, such as the 125-km winds in December 2002, said to be the worst storm of a century here and said to show the climate is changing; and for assuming strong regulation when the opposite is evident.

It was stated that to stabilize the earth's climate, carbon dioxide emissions must be reduced by at least 60% and that this can only be done by implementing renewable energy technologies and energy conservation and efficiency measures and by reducing the production of fossil fuels. Any further inaction on GHGs, it was argued, will have dire consequences for the planet.

Views of lifters

It was stated that information on the internet showed no evidence of environmental degradation in Cook Inlet, which is in an earthquake zone, and that it has a thriving salmon industry. It was also stated that the RSC and previous review reports had concluded that there was no scientific basis for keeping the moratorium in the QCR. Some stated that we need to lift the moratorium to develop an accurate knowledge base.

One presenter introduced a fisherman and offshore petroleum board member from Nova Scotia as part of his submission. The Nova Scotian reported that it took a few years before oil and gas activities were modified to protect fishing but that there was good cooperation between the two industries at present. He described certain environmental effects but stated that current installations on the East Coast are not near areas where activities are precluded; they are in areas not rich in biological diversity and areas with rippling sand bottoms. He stated locally specific species and processes need to be looked at and that information about practices used 10 years ago are not valid today. Seismic exploration is now less intense, and it may be replaced by magnetic exploration techniques in the future.

The Town of Port Hardy stated that seismic testing is used on the East Coast several times annually, and seismic was also used to map the sponge reefs by DFO scientists and the Geological Survey of Canada.

Scope and Nature of Socio-Economic Impacts

Views of keepers

There was said to be unacceptable risk from developing offshore oil and gas to rapidly growing ecotourism, including whale watching and diving, sportsfishing, commercial fishing, and aquaculture, all of which were said to produce many more jobs than offshore oil and gas. The crab fishery was said to support 150 jobs on boats and 200 in processing in the Village of Masset; there are five recreational diving businesses in Port Hardy alone. It was stated that the region's growing ecotourism would become even more valuable as things deteriorate elsewhere. The "Beautiful B.C." image was cited as being at risk from offshore oil and gas development.

Coastal communities were said to need development which can be under local control, sustainable, and compatible with existing industries. It was asserted that offshore oil and gas met none of these criteria.

Global climate change, it was argued, has impacts such as freak weather and flooding in Bangladesh, results in the most vulnerable suffering the most. It was stated that according to a study in Germany, and a University of California, Berkeley report, many more jobs are created by wind projects and other investments in renewables than by fossil fuel projects.

Eight wind farm projects on Vancouver Island were said to be in environmental assessment, that they would create 72 sustainable jobs and that if government would show a commitment to sustainable energy we could make it happen. There was concern for the legacy that would be left for our children. Two people, one who had visited East Coast offshore facilities and one who had visited an Alabama coastal oil and gas area, said few jobs were evident and that a huge portion of traditional fishing areas was taken up by rigs and there was not much tourism in the area.

Massive government investment was said to have been put into the East Coast offshore industry and yet rural communities in those areas were said to be still economically depressed. It was stated that five billion dollars in subsidies were spent on the Hibernia Project and that the money should be spent on renewable energy sources instead.

Views of lifters

It was stated that the offshore oil and gas industry improved the economies, increased in-migration, and increased employment in the U.K. and Newfoundland and could do the same for communities such as Nanaimo, Port Alberni, and Campbell River. Tourism, it was stated, is only viable May through September in the area, while oil and gas employment is year-round. It was stated that if jobs were made available, universities and colleges in the area would offer preparatory courses to help local residents prepare for employment in the offshore oil and gas industry. A secondary benefit would be enhanced search and rescue capability. One presenter stated the B.C. Government should get the bigger part of revenues and that it should set up a heritage development fund and an economic development agency to determine how the funds will be spent.

The fisherman and offshore petroleum board member from Nova Scotia stated that the oil and gas industry is a major employer in the rural area and that it provides a good income for the people involved. He also discussed the benefits for fishermen from improved search and rescue. He said that the fishing industry in Nova Scotia is still producing clean, healthy products, and has averaged a billion dollars a year. However, it is the communities with the infrastructure that get the benefits from offshore oil and gas, e.g. St. John's in the case of Newfoundland. He added that the board cannot force a company to choose a specific contractor that all of the rigs are owned by foreign companies, and benefits are always a tricky problem because of trade agreements and free enterprise policies.

A consultant stated that "given good management" there has been a good news story where offshore oil and gas has been developed. He said it is true that direct benefits tend to concentrate in metropolitan areas; but that there can be indirect benefits by way of government revenues that can then be delivered to rural areas in the form of improved services. Improvements to transportation infrastructure would also take place. He stated there is an issue of compatibility with a pristine image but that tourism is booming in Newfoundland, while it has been damaged in the Shetland Islands. In Newfoundland, he added, the industry is "over the horizon" (distant from shore) so it may be different in the QCR.

> *"...we have two main objectives. One is the educational needs in the area and the other would be long-term sustainable jobs for youth in the area. We find that we have a dwindling youth population. They are going south, getting their education. They are not returning because there is nothing for them to come back to in terms of jobs."*
> (Transcript volume 12, page 11, lines 17-23.)

2.2.9 Written Submissions from the QCR

The Panel received 715 written submissions from participants in the QCR. In addition, 200 participated at hearings in the region. In total, the Panel heard the views and received written submissions from some 811 participants.

Of these, 104 participated by more than one method but each was counted only once.

Summary

Some 384 of the QCR participants who participated solely by way of written submission wished to keep the moratorium while 221 wished it to be lifted. Five QCR participants did not express a view either way. The majority of the submissions were typically a sentence to a paragraph or two in length.

There were 312 ballots and petitions for keeping the moratorium with a further 110 wishing to lift the moratorium. Five participants signed petitions to both keep and lift the moratorium.

Interests and Concerns

Keepers described the uniqueness and pristine beauty of an area where families and communities can still support themselves where they live. Participants wish to protect the area for the enjoyment and benefit of future generations. One third of the participants supported a program to develop alternative energy sources instead of offshore oil and gas. There was also support for a program to increase energy efficiency. Several participants also submitted that there is no shortage of potential oil and gas supply from other areas in Canada and that there is no need to look at the West Coast of B.C.

Many participants stated that First Nations' interests need to be addressed in any decision regarding the moratorium and others were of the view that First Nations' interests should take priority. Several observed that, as a result of either living on Haida Gwaii or visiting the area, they appreciated the Haida's relationship with and dependence on the ocean, their opposition to lifting the moratorium, and expressed their support.

The Lax Kw'alaams Band and Allied Tsimshian Tribes Association were opposed to lifting the moratorium at this time and identified a series of preconditions to any attempt to make important decisions on the moratorium and stated that any proper review in the future, either federal or provincial, must accommodate their rights and title and must respect their right to participate. They insisted that the current moratoria stay in place and that another review process be developed and implemented with meaningful First Nations participation.

The Wuikinuxv Fisheries Department stated that no risk to marine resources is acceptable due to their economic, social and cultural value and that they will therefore maintain the moratorium in their waters.

Several participants wanted to lift the moratorium so that the potential of the QCR oil and gas resource could be determined. It was submitted that offshore oil and gas activity is needed by both the communities and province of B.C. Economic benefits and jobs associated with offshore oil and gas were the reasons most typically cited to support lifting the moratorium.

Several participants on both the keep and lift sides wanted greater weight to be given to the views of those who actually live in the coastal communities near where the potential development would occur and who would be most affected by any decision regarding the moratorium.

Scope and Nature of Potential Environmental Effects

Views of keepers

The majority of participants were concerned that seismic testing would be harmful to aquatic species including fish and sea mammals including whales. One presenter stated that there has never been, at any time or place, a demonstration of seismic technology that does not harm fish. Oil spills, ongoing chronic pollution and toxic drilling muds were raised as concerns about offshore oil and gas activities. Concerns were also raised regarding GHG emissions and the effects of global warming. It was stated that the risks of offshore oil and gas cannot be compared to other marine industries. It was also submitted that there was a risk of spills or blowouts due to the location in an earthquake zone with severe weather conditions.

Views of lifters

Lifters drew attention to the success of technology and the experience in other locations they saw as not so different from the conditions on the coast of B.C. They also submitted that technology would advance and that activities would not occur until it was safe to do so.

Scope and Nature of Socio-Economic Impacts

Views of keepers

Some participants stated that the QCR, and others the Queen Charlotte Islands, had the most to lose and the least to gain. These participants believed there would be few if any benefits or jobs for their communities and that any benefits would not be worth the risks. The potential negative effects on fisheries, tourism and traditional lifestyle were given as further reasons for not lifting the moratorium. A First Nations organization submitted that three of the fisheries alone, sockeye, shellfish and roe on kelp, produce over $80 million annually. It was stated that in addition to economic value marine resources, seafood has social and cultural value and their health depends on them. Several participants stated that they had chosen to live and raise their families in the QCR because of its rural lifestyle and pristine environment and did not want to see it change.

Views of lifters

Lifters submitted that the communities and the province of B.C. need the economic benefits and jobs that would be associated with offshore oil and gas. Several participants also submitted that B.C. should have the same opportunity as other parts of Canada. It was submitted that this is not a question of either oil and gas or fisheries and tourism. Several participants highlighted the need to negotiate maximum benefits and opportunities for British Columbians if oil and gas activities were to be allowed. Offshore oil and gas was also seen as providing an opportunity for lower cost energy for the QCR and possibly helping to attract other industry.

2.2.10 Oil and Gas Interest Owners

Two oil and gas companies who are interest owners in the QCR made oral presentations and written submissions.

A separate summary of the views expressed by these oil and gas industry interests is provided because these presenters are likely to be affected by any decision on the moratorium and to bring together in one place interest owner views which were expressed at different hearing locations.

Summary

The principal oil and gas interest owners take the position that the federal moratorium can be lifted for the QCR and recommend that it be lifted. In their view, this would provide the opportunity to undertake an informed and balanced assessment of the social, environmental and economic considerations associated with potential future oil and gas exploration and development. This opportunity would include obtaining additional scientific information.

Interests and Concerns

The industry's interest in the hydrocarbon resources offshore B.C is a longstanding one. Industry members have explored in the area some 30 years ago and have since participated in the 1984-86 Environmental Assessment Panel, the Scientific Panel Review in 2002 and the RSC Panel in the current review. Based on existing data, they believe that the QCR is a good opportunity for oil and gas resource development.

The oil and gas interest owners stated they are concerned about environmental, First Nations and community matters, among others. They consider that the continuance of the moratorium prevents the public from assessing the value of the potential hydrocarbon resource that the public owns.

Scope and Nature of Potential Environmental Effects

Views of lifters

The oil and gas industry's comments focused on its experience and ability to deal with potential environmental effects, on existing protective measures, and on issues that need to be dealt with before activity takes place.

It was stated that environmental impacts of oil and gas activity can be managed to sustain this biologically diverse area; that rigorous environmental assessment of offshore development already occurs in Canada; and that it is important that all environmental and safety issues are considered prior to granting approvals.

Another presenter considered that the elements necessary to define and implement a sound ecosystem protection framework already exist, but should be clarified. It notes that Canada's *Ocean Strategy* recognizes oil and gas as a legitimate activity in the offshore and there is extensive applicable federal legislation.

It was noted that eight wells had been successfully drilled in the QCR in the late 1960s without observable environmental damage, confirming the industry's ability to work safely and in an environmentally responsible manner in the B.C. offshore. Since then offshore exploration and production technology has continued to advance.

It was asserted that offshore jurisdictions around the world deal with their own unique environments and realize successful, safe and environmentally- responsible operations in areas of earthquakes, high waves, currents, winds and icebergs. A strong belief was expressed that offshore oil and gas activity can be conducted in a safe and environmentally responsible manner based on its experience in other challenging offshore environments and on the expectation of sound and rigorous regulation.

One company stated an overarching commitment to sustainable development, to provide a template for socially and environmentally responsible activity and a framework under which social, environmental and economic considerations can be effectively integrated.

Another said that protection of the environment is achieved by a continuum of measures, including operating procedures, regulatory conditions and timing restrictions. As an example of a cautious step-wise approach, before applying to carry out a seismic survey, the developer would typically collect information, assess all available knowledge, consult all users of the area, plan operations to minimize undesirable impacts and plan monitoring of those impacts during the survey, leaving room to modify operations based on stakeholder and regulator input. Each phase of activity would have its distinct regulatory application and review, with public input. Knowledge gained from earlier phases could be applied constructively to subsequent stages.

However, before any activity takes place in the B.C. offshore, issues that need to be dealt with include early establishment of an effective and efficient offshore regulatory regime and the identification of protected areas.

Scope and Nature of Socio-Economic Impacts

Views of lifters

These presenters recognized that their operations will have impacts and the importance of providing local benefits, outlined measures that may be employed to achieve them, and identified certain concerns and issues that need to be dealt with before activity can take place.

It was stated that socio-economic effects can be managed to deliver positive outcomes to local communities, the people of B.C. and all Canadians.

Presenters stated that, before any activity takes place, unresolved First Nations concerns and issues must be addressed either through land claims settlement or cooperative commercial development arrangements. There was a commitment to work respectfully with First Nations under both existing land and resource governance arrangements and under the terms of any future arrangements.

In the latter connection, companies pointed out that they are resource developers and not owners. The resolution of ownership issues is not their purview, but that of the Crown and potential claimants.

One presenter said it is important they should be welcomed as a member of the community where they work and that the people who are impacted by their operations benefit from them. This was stated with particular reference to First Nations concerns and issues. Regarding the approach to benefits, if operations were planned that would impact a community like the Queen Charlotte Islands, the company would consult with local people to find out their concerns and would look for ways to help establish their capabilities and see how many jobs and other things it could do in the community. Based on a year 2000 gas discovery, one developer now has an operation in Fort Liard NWT where one-third of the employees are locally-based citizens.

As part of its sustainable development principles, one presenter is very interested in building capacity and creating employment locally. As well, the regulatory process requires a benefit plan having to do with benefits for local and First Nations communities that would be impacted by its activity.

One oil and gas interest owner recognized that initial exploration activity results in limited local benefits. More material, long-term benefits come to local communities when a developer is successful in finding commercial quantities of reserves. It was stated that benefits from oil and gas activities are phased over the life cycle of the hydrocarbon resource and they vary in their magnitude, depending in part on local capacity.

The view was expressed that there is in prospect a robust longer-term continental market for natural gas and a global market for crude oil, with strong demand growth and prices sufficient to provide adequate returns for offshore activity.

2.3 Other Coastal Areas

2.3.1 Vancouver Hearing

The Public Review Panel held hearings in Vancouver from 11 to 13 May and the 17 and 18 May 2004. About 250 people attended and of these, 66 made presentations and 25 people asked questions.

Most presenters were from the surrounding area. Others came from locations on Vancouver Island, northern and inland B.C. as well as from Ottawa. There were also presenters from outside B.C. having business interests in the province. Several presenters had also appeared at other hearing locations. First Nations interests made presentations.

Summary

Of the presenters who took a position, 46 wished to keep the moratorium and 16 wanted it to be lifted. Four presenters provided information and views for the Panel, without expressing an opinion on whether or not the moratorium should be lifted.

Positions expressed ranged from wanting the government to legislate a permanent ban on offshore oil and gas development in the QCR, to simply keeping the moratorium, to deferring a decision until more information is available, to lifting the moratorium to allow a regulatory process to be developed and exploratory work to proceed, to simply lifting the moratorium.

Interests and Concerns

The interests of presenters could be categorized mainly as preserving one of the most beautiful environmentally rich places on earth; dealing with the socio-economic opportunities and challenges of offshore oil and gas development; accessing the oil and gas resource base under an appropriate policy and regulatory framework; choosing among alternative energy development scenarios; ensuring that scarce public resources are best invested; addressing issues of climate change; and providing a public information exchange.

There were concerns on the part of keepers that oil and gas exploration, development and production activities could cause irreversible harm to the environment of the QCR. Keepers were also concerned that many businesses and social elements might be harmed as a result of oil and gas activity; that offshore petroleum development would require public investments and subsidies; and that it would discourage governments from pursuing alternative energy strategies that would have superior economic and environmental benefits, including reductions in GHG emissions.

Lifters were concerned that the moratorium effectively prevents information about the publicly owned resource base from being collected. There was concern that the opportunity to reap the socio-economic benefits of oil and gas investment in the offshore should be available to B.C. as they are to other coastal provinces.

Scope and Nature of Potential Environmental Effects

Views of keepers

Those presenters wanting to leave the moratorium in place said that regardless of technological advances in the industry, benefits simply did not outweigh the risks. The risks are defined as destroying or harming the unique, rich and productive ecosystem of the QCR.

Some said that extreme weather conditions such as wind and waves, as well as the threat of earthquakes and tsunamis, made the area inappropriate to oil and gas activity. Others included the risk of accidents and spills, as well as the on-going effects from drilling muds, small spills and seepage.

As in other locations, some presenters focused on the effects of seismic activity on the seabed as well as on fish and mammals. A presenter thought the RSC Report underestimated these effects.

> *"...when you have 98% uncertainty [about whale population distribution]...you would close the entire coast to seismic surveys until you had better information not only on the populations, but on the impact of noise on marine mammal ears and behaviour...keeping the moratorium in place is doing the same thing that the Scientific Panel recommended, which is to incorporate uncertainty."*
> (Transcript volume 16, page 331, lines 12-21.)

Another common theme in addressing potential environmental effects was the subject of information gaps, whether of the scientific, technical or socio-economic kind. Some said they had little faith in the Governments of B.C. and Canada to put in place a regulatory regime to protect such a delicate ecosystem based in part on the Government of B.C.'s move to "performance-based" regulation and that there is currently no offshore regulatory regime in the province. This was in addition to the expressed view that the environmental assessment process in general was inadequate. It was said that the RSC Report was incorrect in assuming science gaps could be filled after a moratorium is lifted, especially in light of perceived lack of science data on the effects of seismic activity.

On a broader level than the QCR, Canada's obligation to the Kyoto Protocol – "a legal and international commitment" – was referred to often. This same group of keepers questioned why the government would renew its commitment to fossil fuel extraction in the area. Intrinsic to this argument is the view that Canada should not be part of offshore development through either policy or funding through subsidy, tax provisions or other mechanisms.

> *"The maximum safe global temperature increase is one degree Celsius. Based on findings of the Intergovernmental Panel on Climate Change...and other globally credible scientific bodies, if we continue burning fossil fuels at present levels, this limit will be reached in under 40 years. Industry already has around four times this amount of carbon in existing reserves...In other words we cannot afford to burn three quarters of oil, coal and gas already found if we want to avoid dangerous climate change."*
> (Transcript volume 22, page 153, lines 27-30 and page 154, lines 1-7.)

Views of lifters

An oil and gas industry association recognized that the marine environment in B.C. is unique in its own right. On the subject of potential environmental effects, lifters claimed that the physical and geographic characteristics of the QCR were no more severe than other locations such as Cook Inlet in Alaska, the North Sea and Atlantic Canada in which the industry operates safely, and that there are no unique operational challenges to oil and gas activity on B.C.'s North Coast.

It was stated that long decades of experience, for example in the Gulf of Mexico and the North Sea, show that fishing is not harmed by prudent oil and gas operations. It was added that the oil and gas and fishing industries work well together off the East Coast and monitoring shows no evidence of any impacts on fisheries resources in Atlantic Canada.

It was frequently stated that advances in technology, industry experience in working offshore and the industry's excellent track record and regime compliance should provide the public with confidence. Generally speaking, lifters had a strong belief that oil and gas activity could be conducted in the QCR in a safe and environmentally responsible manner. An oil and gas industry association said the industry takes the best environmental and other practices from around the world where there is expertise, which continues to grow, in operating in sensitive environments.

In this connection, an association of drilling contractors provided a lengthy list of features of today's offshore drilling rigs, including zero overboard discharge, which it characterized as positive in terms of the impact on the environment and safety. Also with respect to environmental issues, this association stated that any contaminated materials are removed from offshore drilling rigs by workboats for disposal on land.

> *"...we believe we have earned the right to operate on a daily basis in sensitive environments around the world, onshore, offshore, in the Arctic, under freshwater lakes in Canada...we are clearly recognizing and appreciating the fact that the marine environment in British Columbia is unique in its own right...we believe that the regulatory environment in Canada can safely manage activity in the B.C. offshore as it does in other areas."*
> (Transcript volume 15, page 5, lines 12-19 and 28-30.)

On the subject of climate change, lifters agreed that we should be investing in alternative energy to mitigate global warming and that B.C. is perhaps uniquely positioned to be a world leader in this regard, but that there is an obvious need for hydrocarbon fuels in the foreseeable future.

> *"...the biggest issue we face, and one that our (fuel cell) technology is aimed at providing some of the solution towards, is climate change. When hydrogen comes from renewable sources...the greenhouse gas emissions are virtually zero...That is the attraction.*
> *Today, 99% of the hydrogen in the world is produced by the steam reforming of natural gas...We see in the future...in the next 20-30 years,*

> *that natural gas…will remain a main source of hydrogen for the future of the hydrogen economy."*
> (Transcript volume 22, page 4, lines 19-21, page 5, lines 1-4, 12-13, 24-27.)

Scope and Nature of Socio-Economic Impacts

Views of keepers

There were two main messages from these presenters. One was that current and future fisheries and forestry benefits far overshadow any perceived, short-term benefits from oil and gas exploration and development. The other was that not only should money be put into doing some good socio-economic research on this subject, but also that more money should be invested in ensuring that both the fisheries and forestry resources are sustainable for the future. Building a sustainable economic future would be preferable to providing subsidies and other financial incentives to what would likely be a transitory oil and gas industry. As in other hearing locations, the view was expressed that benefits would not accrue to coastal or northern communities.

> *"The current analysis of the economic impacts, the numbers are all over the place…But the problem I have with the current analysis is it does not take into consideration the potential negative impacts on businesses that already contribute significantly to the economy of British Columbia…eco-tourism…the entire B.C. tourist industry…commercial and sports-fishing…"*
> (Transcript volume 16, page 154, lines 19-25, 26, page 155, lines 607 and 14-15.)

Views of lifters

Lifters were of the opinion that pursuing oil and gas would help diversify the economies of coastal and northern centres, including First Nations communities, many of which are currently suffering economic hardships including high unemployment.

Regarding social impacts, a drilling association stated that its members participate in the Petroleum Human Resources Council of Canada. That Council has completed its assessment of key human resource challenges to be faced by the upstream industry over the next decade, focusing on attracting, recruiting and training personnel, on changes in technology and on demographics and changes in regulation. It was stated that stakeholders in a West Coast offshore industry would benefit from the findings of that assessment.

According to a drilling industry association, support industries for Atlantic Canada's offshore business are Canadian sourced. Regarding employment on the drilling rigs, most of the crews now in place on Canada's east coast are Canadians. They submitted that the likelihood of employing local people increases the longer the operation is in place, which has been the case on the East Coast.

> *"We urge this Panel to recommend the immediate, complete and unconditional lifting of the federal moratorium and to allow British Columbia the opportunity to benefit from a viable and flourishing offshore industry."*
> (Transcript volume 16, page 51, lines 24-28.)

Participants not taking a position on the moratorium

A university scientist presented twice to the Panel. In Port Hardy, he indicated his affiliation but stated that he had no agenda other than to inform the Panel. He did so in relation to matters that included the oil and gas resource potential of the QCR (see Section 3.5); the potential benefits of offshore oil and gas development with particular regard to revenue sharing schemes; the needs of coastal communities; and the sorts of jobs that might accrue as a result of oil and gas activity and what qualifications might be needed for them.

In Vancouver, he spoke on technical challenges, including geo-hazards. He considered that other issues included education and training needs in relation to jobs that might become available; and the concept of a legacy foundation or sustainable development fund using a portion of the offshore revenue stream. There are, it was noted, considerable scientific, technical, social and economic studies that need to be conducted, including baseline studies, before significant exploration activity occurs.

A senior official from the Department of Fisheries and Oceans provided a briefing on the Government of Canada's commitment to put in place a modern oceans management regime, the steps being taken to achieve it and the principles behind the *Oceans Act*, which is the foundation for Canada's *Oceans Policy*. It was stated that the federal government is committed to maintaining the health of the oceans and also to fostering economic and social development by capitalizing on their wealth potential in a sustainable manner. DFO is developing, consultatively, national regulatory guidelines and standards governing the conduct of marine seismic activity.

The B.C. Aboriginal Fisheries Commission's (BCAFC) presentation focussed on the need for it to obtain clear, accurate and unbiased information and to have the resources to cope with the amount of technical information involved to be able to make informed decisions. The BCAFC has not reached the point of decision on the moratorium. It also identified procedural issues particularly on the part of the RSC.

One presenter noted a polarization of views resulting from the public's perception that the Panel is dealing with one literally pivotal question: whether or not to lift the moratorium on West Coast offshore exploration and development. He predicted a storm of litigation and/or direct action if the moratorium were lifted and instead suggested the moratorium be replaced by an approach leading to depolarization and convergence among key parties. That approach would focus on timely development of consensus statements on, first, what information is necessary and feasible in order to proceed with offshore exploration and second, on what would constitute an adequate regulatory regime.

2.3.2 Victoria Hearing

The Panel held hearings in Victoria on 13, 14 and 15 May 2004. About 325 people attended, 53 made presentations and there were 51 questioners.[6]

The majority of the presenters were individuals from the Victoria area. Others came from elsewhere on Vancouver Island, including Campbell River, Courtenay and Port Alberni. One person presented on behalf of a group from Sandspit/North Moresby, Queen Charlotte Islands and a number were from Vancouver. There were presentations on behalf of half a dozen groups that also appeared at one or more of our other locations. No First Nations made presentations.

Summary

Of those participants stating a position 31 of the presenters favoured keeping the moratorium and 20 recommended that the moratorium be lifted. Two presenters did not express a view on whether the moratorium should be kept or lifted.

Positions ranged from wanting a legislated ban on coastal oil and gas development, to leaving the decision to be taken at a later date in light of all the relevant information to recommending lifting the moratorium and allowing development to proceed. Three environmental organizations recommended keeping the moratorium. The municipalities of Campbell River and Port Alberni advocated lifting the moratorium.

Interests and Concerns

The presenters' interests were in such matters as environmental and human health, the preservation of the B.C. coast, the welfare and fair treatment of First Nations peoples, the provision of factual information for the Panel, and the economic well-being of the Province and of their communities.

The concerns of keepers were that offshore oil and gas activity could cause severe damage to sensitive coastal resources and related industries, that spills cannot be effectively cleaned up, and that there would be harmful social effects from a boom and bust economy.

Lifters were concerned that if the moratorium is not lifted, the opportunity to consider offshore projects would be lost and with it the prospect of economic gains for Canada, B.C. and for coastal communities suffering from unemployment and out-migration.

Scope and Nature of Potential Environmental Effects

Views of keepers

These presenters were concerned about what they expected would be adverse environmental effects of oil and gas activity on marine birds, mammals, finfish and shellfish, corals and sponges, including glass sponge reefs, and marine vegetation.

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[6] At Victoria on the evening of 13 May 2004, a registered presenter was unwilling to yield the floor. As a result, the session was adjourned for the evening and one scheduled presenter was not heard from. That presenter later followed up with a written submission.

Attention was drawn to the ecological pyramid of the Queen Charlotte Basin and the fact that an oil spill affecting the bottom level—mussel beds, eelgrass and kelp beds for example—could easily affect the top level. It was stated by a person who is technically qualified to command an oil spill response that at present there is no credible spill response operation in the QCR for most of the winter months.

There was concern about the effects of seismic testing on the whole range of marine animals and, at the drilling and production stages, of routine operations giving rise to daily chronic pollution from routine spills and other toxic discharges to air and water. Like the presentations at earlier hearings, attention was drawn to the risks for offshore operations of earthquakes, tsunamis, wild winds and giant waves. These factors it was said significantly increase the risk of an environmental disaster. It was argued that "offshore" is a misnomer and that it is really inshore oil and gas being addressed. The enclosed nature of the basin, its tides and currents, would multiply the negative effects of a disaster and would hamper oil spill cleanup. The statement was repeatedly made that the environmental risk of offshore oil and gas activity is too great.

Calls were made for baseline scientific information to be produced before any decision is made on the moratorium. An example was given of a three-year study of the abundance and distribution of cetaceans on the B.C. coast to be started in summer 2004. One presenter concluded that the moratorium should be maintained until a credible year-round spill response operation could be launched.

> *"I oppose the lifting of the ban for three main reasons: the first reason being environmental impacts...the possible inherent risks which are known, such as seismic testing, seafloor disturbance and contamination. It is not possible to have...very large industrial processes taking place without having an inherent environmental impact...Lastly on the environment, I do not believe that studies so far done provide anywhere near enough information as to the real effects..."*
>
> (Transcript volume 20, page 235, lines 14-19 and page 236, lines 1-3.)

Climate Change

The central argument in several presentations was that the greatest negative impact of offshore oil and gas development is climate change and associated effects in terms of rising temperatures, Arctic ice melting, increasing sea levels, droughts, heat waves, ice storms and other extreme weather events, together with secondary effects on forests, fisheries and human health. While one person stated that the presentation of (energy) alternatives may fall outside the scope of the hearings, that person along with several others argued that governments' resources should be put into clean energy technologies rather than fossil fuels. Wind energy received particular emphasis on the grounds that the potential benefits of wind power outweigh those of offshore oil and gas. It was argued that if governments were to put energy, time and resources into clean energy technologies, B.C. could be a powerhouse in this sector. Presenters stated that government and private investment in offshore oil and gas violates the federal government's commitment to the Kyoto Protocol by increasing GHG emissions and reducing the incentive to invest in alternative energy sources such as wind, solar, tidal, microhydro and geothermal power.

> *"...I believe oil and gas are obsolete. We are talking about a major investment in a sunset industry...If we as a society...are going to make such an investment, I believe it should be made in alternative energy, the sunrise industries. How much biofuel capability could we achieve for such a huge investment of just a billion dollars? What about hydrogen and wind power? ...let us start the future of clean energy renewal and leave these obsolete fuels where they are."*
> (Transcript volume 20, page 237, lines 8-21.)

Many presenters stated that the RSC Report conclusion, that there was no scientific reason not to lift the moratorium, was not justified by its finding of information gaps. It was also stated that climate change and its impacts should have been addressed in the RSC Report and were not. It emphasized the low probability of an oil spill and neglected to consider its consequences in its assessment of risk. The view was advanced that the RSC Report gave shockingly little attention to the circulation patterns in the Queen Charlotte Basin, considering its importance in the event of an oil spill.

Views of lifters

Presenters considered that the B.C. coastal environment is beautiful and unique, recognized that political constituents have concerns about it and agreed that measures are needed to protect it. These presenters stated that the 1972 moratorium was aimed at tanker traffic and was renewed in 1989 due to two oil spills not associated with offshore oil and gas activity.

Lifters cite dramatic technological improvements in the offshore industry over the decades and the operational record of safe and successful offshore elsewhere, including areas with more severe weather conditions than the QCR. First hand experience was presented regarding Cook Inlet, Alaska, where there are currently 15 offshore platforms, on such matters as the industry's good record of minimizing oil spills despite earthquakes and ice floes in the Inlet; contingency measures to deal with possible spills; and one zero discharge platform installed in 1994 and representative of the newest technology.

Lifters generally agreed with the RSC Report and the 2002 Report of the Science Review which were characterized by a former university chancellor as the product of experienced, knowledgeable experts. They recognized that there are important gaps in scientific knowledge and argued that lifting the moratorium is the best way to fill those gaps; to understand environmental issues by carrying out assessments; and to acquire information about the location, nature and potential quantity of oil and gas resources. A senior university scientist said that he thought the moratorium was "silly" and it does no good and lots of harm. It stops scientific work being carried out to fill the information gaps. The questions deserving attention relate to the steps along the way of oil and gas activity, such as whether or not to do seismic surveys. A solid regulatory regime would manage those questions and stop the activity if the answer were "no". In this connection, rebuilding of scientific and regulatory capacity in the provincial and federal governments is crucial.

These participants would endorse other preconditions defined by industry and First Nations, such as negotiation of a fair and equitable agreement with First Nations, development of a revenue sharing framework, creation of fiscal arrangements and definition of sensitive areas.

> *"The foundation of the decision to remove or retain the moratorium must be based primarily on the results of incisive scientific and technological inquiry supported by a comprehensive regulatory regime. To date, independent and competent scientific analysis has shown no necessity to retain the moratorium."*
> (Transcript volume 19, page 205, lines 1-6.)

Climate Change

Several presenters discussed GHGs, climate change and alternative energy sources. One agreed that the Kyoto Protocol is directionally good and several felt we should be moving to alternative energy forms. But reductions in GHGs are primarily at the point of consumption and it is there, it was argued, rather than at the production end, that emissions should be managed. Another viewpoint was that the quantum of hydrocarbons that would be added to world reserves as a result of development of the B.C. offshore is miniscule and should have no impact on the inevitable shift away from hydrocarbons to alternative energy sources.

Scope and Nature of Socio-Economic Impacts

Views of keepers

The predominant social concern expressed was for First Nations. It was stated that we (non-First Nations, that is) have dislocated their lives for long enough and that it is time to listen to First Nations, who are actively opposed to lifting the moratorium, in terms of protection of their traditional and modern economy. It was stated that the moratorium cannot be lifted until negotiations and claims have been settled honourably. First Nations should be funded to fully participate in moratorium discussions, including collection of relevant baseline data.

As to economic concerns, it was stated that the drive to lift the moratorium has come from governments, not industry, and that if it is lifted the taxpayer will have to pay for tax and royalty concessions, environmental hearings, training schemes, project development subsidies, boom and bust cycles and for damages from spills beyond existing insurance coverage. A small number of B.C. jobs would be created, most of them far in the future and not in the coastal communities. The modest economic benefits would be concentrated in urban areas. It was argued that offshore oil and gas activity could destroy jobs in commercial and sport fishing and eco-tourism.

> *"To summarize, the Green Party of Canada is absolutely opposed to lifting the moratorium...It is a dead-end future for B.C. and Canada with no long-term jobs and no real economic benefits. It is too risky to drill in an earthquake zone and with such stormy seas. It serves U.S. over-consumption without helping Canada. We risk missing the boat on real job creation, conservation and renewables...Investing in community development for rural B.C. will be set back by oil and gas development."*
> (Transcript volume 19, page 162, lines 10-21.)

Views of lifters

Several presenters linked expectations about oil and gas resource revenues, to meeting the needs on the one hand of young people for training so that they would not leave the area and on the other hand, of an aging population for health care. Offshore oil and gas offers the hope, it was stated, of large and desperately needed returns to help ensure meeting the demands and needs of British Columbians for social services, roads, bridges, advanced education, and care of the disabled.

On the economic side, it was stated that lifting the moratorium would strengthen shipbuilding and ship repair in the region; help increase the supply of experienced mariners; and provide the opportunity for resource-based communities to develop new industries, new technologies and, perhaps most important, employment. In this connection, a training strategy for the wide range of job requirements in offshore exploration should be one of the first steps for the Government of B.C.

A representative from Port Alberni cited experience with the offshore oil and gas industry in the late 1960s to early 1970s which proved to be extremely positive and expressed confidence the industry has the expertise in many areas to operate successfully. It was stated that what was the world's largest offshore drilling rig at the time had been built in Victoria in the late 1960s.

As to the East Coast, a presenter with first-hand experience said it is estimated that local suppliers can meet 20-25% of the work at the development stage of offshore projects, and in Newfoundland are winning 80% of those contracts. It was argued that there are known risks of offshore activity but that they are low. However, the loss of economic opportunity is a risk too, especially for coastal communities suffering unemployment and out-migration. It was requested that B.C. be given the opportunity to consider offshore projects, recognizing that there is no guarantee of a successful industry developing.

> *"If we can engage in this kind of activity...in Atlantic Canada...in the Arctic...in the Beaufort...in the Great Lakes, if we can do that in Canada and if this activity can take place around the world...in a relatively exemplary manner, how can anybody reasonably argue that we should be denied the opportunity to investigate this for the West Coast? How can anybody reasonably deny the opportunity for British Columbians...to develop the resources...in an intelligent and environmentally sound way for the benefit of the people not just in British Columbia, but quite frankly, for the people of Canada? ...British Columbia is a marginally have-not province and it does not make sense to not look at this question."*
> (Transcript volume 20, page 116, lines 28-30 and page 117, lines 1-15.)

Participants not taking a position on the moratorium

A representative of Parks Canada provided background on his Agency's National Marine Conservation Areas Program and provided advice regarding considerations for the SEA portion of the Public Review.

2.3.3 Written Submissions from Coastal Areas Other than QCR

The Panel received 2,379 written submissions from participants from other coastal communities. In addition, 176 participated at hearings in Vancouver and Victoria. In total the Panel heard the views and received written submissions from some 2,430 participants.

Of these, 125 participated by more than one method but each was counted only once.

Summary

Some 1,861 of the participants who participated solely by way of written submission wished to keep the moratorium while 393 wished to lift the moratorium. The majority of the submissions were typically short and a small proportion did not provide reasons to support their views.

There were 1,152 ballots and petitions for keeping the moratorium and 13 for lifting the moratorium.

Interests and Concerns

Keepers highlighted that the coast in the QCR is pristine and submitted that it is one of the last such areas in the world. They wish to protect the area and not add to the existing stressors on fishing or limit the growth potential for tourism. Rather than oil and gas activities, participants saw an opportunity for Canada to be a world leader in the development of alternative energy. Several participants were of the view that the moratorium should be left in place until all studies are done and there are ironclad assurances that a mishap will not happen. Some of these participants stated a concern that offshore oil and gas activities are inconsistent with Canada's commitments under the Kyoto Protocol.

A number of the lifters wanted to determine what the potential of the oil and gas resource is. It was submitted that oil and gas presents a range of new opportunities and though not a panacea for the region, it could be an important contributor to its economy.

Scope and Nature of Potential Environmental Effects

Views of keepers

The majority of participants raised concerns with seismic testing, toxic drilling muds, pollution and spills associated with offshore oil and gas activities harming the marine environment especially fish and whales. Participants were of the view that the risk of spills or blowouts would be higher due to the area being an earthquake zone with weather conditions and tides that would bring any spills to shore. Several participants raised concerns about GHGs associated with exploration and production. Concerns were also raised about the effects of climate change on the marine and other ecosystems, and that climate change would aggravate weather conditions that would affect offshore oil and gas activities.

Views of lifters

Lifters submitted that technology had advanced since the moratorium was put in place and that activity on the East Coast of Canada and other locations in the world show that offshore oil and gas activities can be conducted safely and without harm to the environment.

Scope and Nature of Socio-Economic Impacts

Views of keepers

It was stated that given the specialties required to work in the offshore activities that most of the jobs would not go to people from the coastal communities. The potential negative effects on fisheries, tourism and its potential for growth, and traditional lifestyle were the most commonly cited reason for not lifting the moratorium. It was submitted that the GDP for tourism was 72% of that of the forest industry. A chamber of commerce on Vancouver Island wished to keep the moratorium to protect the growing tourism industry in its community.

One participant expressed a view, also reflected in other submissions, that there are two different worlds, one of the ebb and flow of the tides and the other a world of skyscrapers, and that the narrow questions put to them in the Public Review Process did not consider community pride and respect, or respect of place.

Views of lifters

Lifters submitted that the communities and the province of B.C. need the economic opportunities and jobs that offshore oil and gas activities would bring and in a couple of cases requested that the moratorium be lifted for the entire B.C. coast. Participants were concerned about the decline of coastal communities and a concern was raised that out-migration from the North end of Vancouver Island needed to be addressed before it was too late to reverse. Several participants saw a need to ensure benefits from offshore oil and gas activities accrued to the communities and B.C. and one submitted that B.C. needed to control the investment to obtain benefits and attract further business.

2.4 Written Submissions from Other Communities in British Columbia

The Panel received 446 written submissions from participants in other communities in B.C.

Three participants provided their views by more than one method but each was only counted once.

Summary

Some 253 of the participants from other communities in B.C. wished to keep the moratorium while 191 wished to lift the moratorium. Two participants did not express a view either way. The submissions typically were a couple of sentences to less than a half a page in length and a small proportion provided no reasons to support their views.

There were 143 ballots and petitions for keeping the moratorium and 32 for lifting the moratorium.

Interests and Concerns

Keepers value the pristine beauty of the B.C. coast and expressed the desire to set the area aside for the enjoyment of future generations. Many of the participants were concerned about potential environmental effects from offshore oil and gas activities. The majority of keepers identified alternative energy as a more appropriate focus for governments and communities and as a preferred alternative to oil and gas activity.

The interests of lifters from these areas included offsetting the downturn in the economy of the coastal communities. Economic benefits and jobs associated with offshore oil and gas activities were the reasons most commonly cited to lift the moratorium.

Scope and Nature of Potential Environmental Effects

Views of keepers

Concerns were identified with hazards and risk to the environment. Participants raised issues regarding damage to a unique environment and biodiversity during all phases of offshore oil and gas activity starting with the harm to aquatic species, fish and sea mammals, especially whales, that would result from seismic testing.

An international environmental organization, with members in B.C., stressed the importance of establishing protected areas before considering whether to keep or lift the moratorium.

Participants stated that there would be releases of toxic drilling muds and ongoing spills and discharges. They were concerned about release of GHGs from production and use of offshore oil and gas. Some raised the issue of final clean up after production ceases. In the view of several participants, catastrophic spills or blowouts would be inevitable due to a combination of the inshore location of the potential activities, their being conducted in an earthquake zone, and the effects of severe weather, tides and currents that would bring spills to shore, and human error.

Views of lifters

Lifters submitted that, based on the success of technology and the experience in other locations, including the East Coast of Canada and in Alaska, that there is sufficient knowledge and experience to protect the environment. Some of these participants cite the track record of these operations as demonstrating that there would be minimal or no negative effects on the environment.

Scope and Nature of Socio-Economic Impacts

Views of keepers

Participants were of the view that there would be few, if any, local jobs due to the highly specialized nature of the work. They considered that any benefit would be outweighed by the risk and damage to the environment. They were further of the view that any gain would be short term and that there would be long-term social and economic loss because the cost to the environment has not been properly factored in. These considerations included loss of sustainable industries such as eco-tourism or compromising the work that has been undertaken to restore fisheries.

Views of lifters

Lifters pointed to the loss of jobs in traditional sectors, the transferable experience that some British Columbians already have in offshore activities elsewhere, and the benefits that the East Coast, Alaska and Norway have seen from offshore oil and gas activity. Some participants submitted that British Columbians deserved the same opportunities as East Coast residents. Several participants provided conditional support provided that benefits for local communities would be addressed. Others were of the view that revenues to the province serve to support government health care, education and other services, and to reduce overall taxes.

2.5 First Nations

The following summary is intended to capture in one place what, in the Panel's judgment, were the salient views expressed by presenters on behalf of First Nations. The Panel also heard from First Nations organizations and self-identified First Nations individuals. The views of all three of these groups of participants are reported in the previous summaries.

Summary

All First Nations in the QCR who participated wish to keep the moratorium as did the Nuu-chah-nulth Treaty Table.

Their positions ranged from keeping the moratorium indefinitely, to keeping the moratorium at this time and replacing the process for reviewing the moratorium.

Two First Nations in other coastal areas of B.C. favoured lifting the moratorium. One of them wanted the moratorium to be lifted on the entire B.C. Coast.

Queen Charlotte Region

Views of keepers

All First Nations in the QCR who participated strongly voiced their views that the moratorium should be kept.

Those First Nations from the QCR who participated were: Tsimshian Nation; Gitxaala First Nation; Nuxalk First Nation; 'Namgis First Nation; Kwakiutl First Nations; Coastal First Nations (an alliance of First Nations on B.C.'s North central coast and Haida Gwaii, which included the Wuikinuxv Nation, the Heiltsuk Nation, Kitasoo Xai'Xais, Gitga'at, Haisla Nation, Metlakatla, Old Massett, Skidegate and the Council of the Haida Nation); and Lax Kw'alaams Band and Allied Tsimshian Tribes Association.

The major concerns of First Nations in the QCR are: the preservation of a culture and lifestyle which is dependent on the health of the oceans; economic self-sufficiency through traditional sustainable resource use; the high environmental risk of offshore oil and gas activities; the potential impact on rights and title of a decision to lift the moratorium; and repeated losses of natural resources, particularly marine resources, resulting from unsustainable federal and provincial management policies and practices. Other concerns were the importance of restoring decimated local salmon and other fisheries resources through habitat restoration and other means; the need to address a lack of participation by First Nations in major B.C. commercial fisheries; access to natural resources under a joint management regime; low economic benefit to small coastal communities from offshore oil and gas activities; the inadequacies of past and present review panels to address First Nations input; the need to make their own decisions about marine resources; and the need for a new process for reviewing the moratorium decision, with particular regard to information needs, related funding, First Nations participation and decision-making.

The President of the Tsimshian Nation stated the federal moratorium should remain if First Nations are excluded from decision points. It was also stated that they supported the review process, but it should be fully inclusive of and collaborative with First Nations in the QCR, with appropriate funding, and address joint management and regulation issues with realistic timeframes for planning, research and education.

The position expressed at the Hereditary and Community Meeting of the Gitxaala First Nation was that they are opposed to lifting the federal moratorium and will maintain their moratorium on offshore oil and gas until such time as they and other First Nations who are directly impacted by offshore oil and gas are adequately funded to gather their own information and to do their own due diligence on information-gathering, so they can make a better-informed decision for themselves.

The Chief of the Band Council of the Nuxalk Nation stated that the moratorium was theirs and was not about to be lifted. They were not impressed with the review process, and considered that a First Nation should have been on the Public Review Panel. It was stated that without a settlement of jurisdiction and ownership over lands, water and resources no First Nation, including theirs, can consider offshore oil and gas.

A Chief of the 'Namgis First Nation stated that they strongly oppose the lifting of the moratorium. He also stated the Musgamagw-Tsawataineuk Tribal Council, of which the 'Namgis First Nation is a member, strongly opposes the lifting of the moratorium. The Musgamagw-Tsawataineuk Tribal Council also has as its members the Tsawataineuk First Nation from Kingcome Inlet, the Kwicksutaineuk/Ah-Kwa-Mish First Nation from Gilford and Wakeman Sound, and the Kwa-wa-aneuk First Nation. He also stated that the 'Namgis also belongs to the Winalagalis Treaty Group, whose membership oppose the lifting of the moratorium.

Two Kwakiutl band members, one of whom is a band councillor, stated that they opposed the lifting of the moratorium. Both presenters expressed concerns about issues such as the environmental risk of oil spills and seismic testing, as well as the need for employment for their people. It was stated that any decision on the moratorium would require consent from their people.

The Executive Director of Coastal First Nations, an alliance of First Nations and First Nations communities on the B.C. North central coast and Haida Gwaii, shared with the Panel the findings of a report commissioned by them, which supported their position that at this point in time the moratorium be maintained. They demanded that the current review process be completely restructured to create a shared decision-making process among First Nations, the federal and provincial governments. They stated that they are the people who will have to live with any impacts of oil and gas activities on the coast. Because First Nations have been recognized on a government-to-government basis in B.C., they had in 2003 expressed interest in co-hosting a consultation process with the federal government, and that after outlining a cooperative approach for the establishment of the Scientific Panel and Public Review Panel, they were surprised that the federal government chose to ignore their proposal. It was stated that the federal review process is fundamentally flawed and not credible and that was why their people were not participating in the process; as well, the First Nations Engagement Process lacks resources, a clear mandate and strategic approach to get its job done.

Lax Kw'alaams Band and Allied Tsimshian Tribes Association insisted in a written submission that the current moratoria stay in place and that another review process be developed and implemented with meaningful First Nations participation. It submitted views that past and present provincial and federal review processes lacked consideration of First Nations input, interests, rights and title, and status as a government, that members of the federal review panel and the B.C. Offshore Oil and Gas Team clearly favour industry development, and that the federal and provincial governments have not negotiated treaties nor negotiated interim or revenue and jurisdiction sharing agreements.

Other Coastal Areas

Views of Keepers

One First Nation submitter from other coastal areas of B.C. was the Nuu-chah-nulth Treaty Table, representing Ahousat, Ehattesaht, Hesquiaht, Mowachahl/Muchalaht, Nuchatlaht, Tla-o-qui-aht and Tseshaht First Nations. They stated that they respect the jurisdiction that the Haida and Tsimshian have in their territories in the Queen Charlotte

Basin. However, their principle of connectedness necessitates that they speak in favour of keeping the moratorium. They expressed concerns for the protection of salmon, herring, and eulachon runs that return annually from the QCR to B.C. coastal rivers.

Views of lifters

A representative on behalf of the hereditary chiefs of the Huu-ay-aht First Nations, and of their elected council and membership, supported lifting the moratorium, and expressed the view that the federal review process should not consider lifting the moratorium on only a portion of the coast, but should take a coast-wide approach, because of the principle of interconnectedness that they and other First Nations recognize as part of their culture. They proposed a tripartite agreement on a Pacific Accord, provided their members could make an informed decision.

The Chief Executive Officer of the Naut'sa mawt Tribal Council submitted on its behalf that it supports the lifting of the moratorium so that the true extent of the resources may be determined. In its view, the results of the RCS Report show that there is no sound reason to maintain the moratorium.

2.6 Government of British Columbia

The Government of B.C. made presentations at hearings at Prince Rupert on 15 April 2004, at Victoria on 15 May 2004, and at Vancouver on 18 May 2004. The B.C. Government made a number of written submissions to support its views, including documents and reports prepared by others, both current and historical. As a convenience to readers the Panel has brought together in one place a summary of the major views submitted by the Government of B.C.

Summary

The Government of B.C. supports the lifting of the moratorium on offshore oil and gas activities along all of the B.C. Coast.

The Government of B.C. stressed the significant role that the oil and gas industry already plays in B.C., and the substantial contribution that the industry makes to the economy and provincial budget. It was also emphasized that there will be a need for fossil fuels for several decades, and that the hydrogen economy will depend on fossil fuels as a feedstock. The policy direction of the Government of B.C. is for the responsible development of offshore oil and gas.

> *"An offshore oil and gas industry could bring significant public benefits, including: government revenue to support healthcare, education and other vital public services; jobs and training in the energy, ocean, marine and service sectors associated with offshore development; local and provincial business opportunities in supply and service industries; expansion of British Columbia's research and development and educational capacity; growth in energy and technology-intensive industries (example: petroleum refining, petrochemicals, advanced robotics and engineering); investments*

> *in ports, airports, shipping, pipelines, telecommunications and other infrastructure; increased exports of goods and services; indirect and induced benefits from the re-spending of income by offshore-related businesses and workers, and, of course, an increased security of supply."*
> (Transcript volume 4, page 78, lines 18-30, and page 79, lines 1-3.)

Interests and Concerns

The Government of B.C. has launched a comprehensive plan toward commencement of exploration activity by 2010 which focuses on:

- working with First Nations, coastal communities and key stakeholders to identify concerns and work on solutions;
- developing options for a comprehensive management and regulatory regime; and,
- working with the Government of Canada to advance scientific knowledge on the B.C. offshore, and make that knowledge more accessible to the public.

The Government of B.C. stated that through its B.C. Offshore Oil and Gas Team has made significant efforts to implement the first element of this plan through various means, including their website, presentations, conferences, fact-finding missions, an educational primer, and funding to First Nations, fisheries, and economic development groups for information research and dissemination.

In connection with information availability for the public about the issue of offshore oil and gas and the related moratoria, the Government of B.C. considers that there are two streams of information related to offshore development: general information on exploration and development, including the experience of other jurisdictions, which provide a basic level of public understanding, and specific information on issues of interest such as the fishery, seismic activity, and the regulatory regime; and detailed information which would be required to meet future regulatory requirements in relation to permitting of a specific activity.

Concerning detailed information, it is the Government of B.C.'s view that a regulatory and management regime is required so that experts can provide that detailed information on a specific activity or proposal for a particular location. It is important to distinguish between the amount of information necessary to reach a decision on the moratorium and the greater level of information required to assess a proposal to undertake a particular activity.

> *"Current regulatory and management regimes globally and nationally in our view clearly demonstrate that offshore activity can be properly managed, monitored and enforced, and that the application processes indeed deal with the detail, often very complicated and technical information that may be required to approve, deny or modify a specific activity....corporate activities and public bodies also rely to a*

> *significant extent on experts of various types to provide the facts on which to base decisions."*
> (Transcript volume 20, page 18, lines 24-30, page 19, lines 1 and 7.)

The Government of B.C. stated that community consultation will be essential to post-moratorium decision-making. First hand experience of the Cook Inlet Citizens Advisory Council was presented as a process that B.C. should look to when setting up a consultation system.

It is also the Government of B.C.'s view that the moratorium be lifted in its entirety, not in a partial or stepped fashion, so that the relevant science concerning knowledge gaps and research can be carried out in a coordinated, collaborative way with the Government of Canada. It stated that science funding is very difficult to get, and if there is not a prospect of a return or activity happening (i.e. offshore development), the investment by industry will not be made. An official of the Province stated that senior federal civil servants have several times told B.C. officials that it will not proceed on its own or with the Government of B.C. on a scientific exercise related to offshore development until the moratorium is lifted.

Regarding policy related to jobs and benefits, the Government of B.C. stated that those issues are contemplated in the design of a fiscal royalty and regulatory regime, which can be developed in many different ways, and the design of a regime that focuses on jobs rather than royalty returns to B.C., or vice versa, would require consultation with British Columbians and the Government of Canada.

The Government of B.C. is of the opinion that if the moratoria were lifted, nothing will have changed legally because the moratoria are matters of policy rather than science. Although there are legal mechanisms that would allow the oil and gas industry to pursue offshore activity, it is likely that the governments of Canada and B.C. would consider negotiating an accord, because there is a need to deal with the uncertainty of offshore ownership and jurisdiction, First Nations issues, the legal framework for rights allocation, and refinement of project review and assessment processes. There has to be a political understanding by the governments of Canada and B.C. which could take the form of an accord similar to the East Coast offshore accords.

> *"In a nutshell, it [the conclusion] is that there is a viable process there, both on the oil and gas side, and on the environmental, social and economic assessment side in principle. But there are some obvious elements that have to be dealt with. The most important of those lead us right back to the policy level, that is, inter-governmental understanding and First Nations issues in particular."*
> (Transcript volume 22, page 120, lines 27-30, page 121, lines 1-4.)

In connection with a policy decision whether or not to lift the moratorium, the question for public policymakers is whether enough is known about the potential risks versus the potential benefits to lift the federal moratorium and proceed with offshore exploration activity. The Government of B.C. believes that federal policy should be consistent with other parts of Canada.

The Province acknowledges that questions of ownership and jurisdiction are beyond the mandate of the Panel. However, recognizing that they are clearly issues that must be addressed in order to move forward, they acknowledged that ownership of the Queen Charlotte Basin remains in dispute between B.C. and Canada, and, in addition to unresolved questions related to aboriginal rights, that several coastal First Nations have asserted aboriginal title over offshore areas. The Government of B.C. supports a negotiated approach with Canada similar to the Atlantic Accords that set aside questions of ownership, and believe that a similar approach can be made with First Nations, with a role in the management and regulatory regime and share of benefits from offshore development.

According to the Government of B.C., the moratorium has contributed to knowledge gaps and impeded research to identify environmental and socio-economic effects, because of lack of interest by industry and translation into low priority budget allocation decisions by the federal government. It says that offshore research in B.C. will follow offshore activity, as demonstrated in other jurisdictions, such as Norway and Newfoundland.

Views of the Government of B.C. Regarding First Nations Issues

The Province is of the view that the moratorium significantly hinders the ability of First Nations to obtain answers to their questions about possible impacts from offshore oil and gas activity because the absence of reliable information has limited the Province's ability to provide information to specific First Nations about their interests. The Province said that many of the concerns of First Nations should be addressed by the federal government, but because of the moratorium, it cannot engage with the province.

The Government of B.C. said that it would continue to work with First Nations in accordance with the following principles:

- First Nations will share in the benefits that accrue from offshore development;
- First Nations will have a role in the management and regulation of offshore development;
- First Nations will be provided with timely, objective and relevant information on the risks and benefits of offshore oil and gas development; and
- offshore exploration and development will occur in a manner that minimizes adverse impacts on traditional values and activities, and unavoidable impacts will be mitigated to the fullest extent possible.

A representative of the Government of B.C. stated that if First Nations are fully engaged, that if they and the federal and provincial government are all satisfied with the regulatory regime, the fiscal and royalty regime, the environmental assessment regime, and the local benefits regime, then it does not matter who owns the resource.

Scope and Nature of Potential Environmental Effects

Based on scientific studies to date and their own internal assessment of the risks and benefits, the Government of B.C. considers that the removal of the moratorium is necessary to enable the gathering of information to define and assess the resource, evaluate environmental risks, and develop appropriate measures for managing these risks.

The Government of B.C. stated that in the absence of actual experience in the B.C. offshore, concerns expressed about the range of adverse environmental effects of offshore oil and gas activity must be considered speculative, and the experience in other jurisdictions has shown that such effects can be effectively managed through appropriate regulatory procedures.

In connection with the identification of environmentally sensitive areas, the governments of B.C. and Canada are working on a collaborative approach as part of the implementation of Canada's *Oceans Strategy*, using an integrated approach that balances environmental, social and economic values, which seeks to minimize adverse impacts on any of these values.

The Government of B.C. agrees with the RSC Report that protected areas should be identified at an early opportunity, but it is very difficult to identify the relationship between oil and gas activity and other values without carrying out exploration activities to define where recoverable oil and gas resources are actually located.

In connection with the Kyoto Protocol, the Government of B.C. maintained that B.C. is not a great contributor to GHGs and work is being carried out to reduce pollution. It was stated that, as part of the province's energy policy, all new generation for B.C. Hydro has to be provided by renewable sources. There are major hydroelectric projects; already 86% of B.C.'s energy generation is "green". The Province has funded fuel cell research and development.

Scope and Nature of Socio-Economic Impacts

The Government of B.C. stated that wildly divergent views have been expressed concerning potential socio-economic impacts, with differences primarily residing in how benefits will accrue to local communities. The socio-economic impacts of offshore activity, and their distribution, will in its view depend on the size and location of commercially recoverable oil and gas resources, and the fiscal and operating rules that will govern development. In its view, these impacts can only be properly assessed in the context of specific proposals for offshore activity.

The Government of B.C. considers that the potential public benefits from an offshore oil and gas industry are too great to ignore, because supply and demand forecasts indicate a clear need for new oil and gas resources, notwithstanding the growth in clean energy. A need for family-supporting jobs and security of supply of fossil fuels were considered to be a priority over leaving the resource for the benefit of future generations.

The Government of B.C. does not support subsidies and is not considering them for the offshore industry.

The Government of B.C. does not see NAFTA as an impediment to programs that can provide preference or favour to local businesses or opportunities. The Province stated that it has reviewed NAFTA and other trade related arrangements, and that they allow a considerable range of policy measures that will provide flexibility for B.C and Canada to provide for significant local benefits should terms and conditions on future developments be required. The Government of B.C. acknowledges that some of the local benefits provisions would today be contrary to NAFTA, but it also states that its natural advantages of having B.C. firms already working on offshore around the world, having its own onshore regulatory regime, and first rate training and educational capacity, will ensure that local business and individuals will benefit from offshore activity.

2.7 Summary of Views on Mitigation, the Scope and Nature of Residual Effects and Follow-up

The following summary of the principal views expressed as to the above considerations, taken from the Cabinet Directive on SEA, draw together in one place views expressed by participants in oral presentations and written submissions. They are arranged in relation to the three main environmental effects issues discussed above.

In most cases participants focused on issues of primary concern to them. As a result, relatively few views were provided on the need for mitigation, the scope and nature of residual effects or follow-up. To assist the reader, views on these matters are summarized in this section and do not appear in the area summaries.

2.7.1 The Need for Mitigation

General comments

Views of keepers

Doubts were expressed that any of the mitigation measures proposed would be effective in protecting the marine environment, including whales and fish. There were numerous statements that not enough was known to design effective mitigation measures and that the regulatory processes at the project approval stage would not allow for the filling of those information gaps. Knowledge gaps pointed out by the RSC Report were emphasized, as was a general lack of baseline data.

Views of lifters

It was stated generally that an appropriate regulatory regime, developed on best practices, would address mitigation. One presenter stated that residual effects would be minimal because we have learned how to mitigate environmental effects. It was proposed that once a regulatory and management regime is developed, protected areas are determined, and exploration and development projects are proposed, then that is the time that mitigation measures and any residual effects would be addressed.

Effects of Seismic Exploration

Views of keepers

A First Nations fishery department submitted that there was no evidence that seismic activity could be undertaken without harm to marine resources. It was stated by a number of presenters, including QCR whale researchers, that impacts on species at risk and other animals such as whales and fish could not be mitigated by measures such as avoiding seismic activity in their identified habitats, as assumed in the RSC Report. It was stated that such an approach would be nearly impossible at the best of times, especially in light of cuts in governments' environmental staffs. It was also stated that the impact of seismic activity on fish is more complex than current research and mitigation measures would suggest. Doubts were expressed that the oil and gas industry could demonstrate effective mitigation measures to deal with the unusual risk factors in the QCR. In regard specifically to seismic mitigative measures such as ramp-up and avoidance procedures, it was stated that none has proven effective. In addition, some scientists anticipate that ramp-up may be doing more harm than good.

Views of lifters

Mitigation measures were cited that have been used in Eastern Canada, including ex-fishermen as observers on all seismic vessels, ramp-up techniques for seismic surveys to scare away marine life, and work carried out during appropriate time windows. An oil and gas interest holder stated that some environmental concerns can be effectively addressed by measures to avoid repeated seismic surveys.

It was also observed that regulatory processes would provide for mitigation measures for seismic and that under the *Canadian Environmental Assessment Act*, a huge part of the justification for projects that could have significant adverse environmental effects relates to the mitigation program or the terms and conditions that will be put in the approval.

Participants not taking a position on the moratorium

DFO has stated that it is developing, consultatively, national regulatory guidelines and standards governing the conduct of seismic activity.

Effects of Oil Spills and Other Potential Impacts

Views of keepers

The potential for mitigation of oil spills, both chronic and catastrophic, was considered to be inadequate, when a successful oil cleanup results in 15% oil recovery. It was stated on behalf of Alert Bay Village Council that the community is preparing emergency plans to deal with any kind of tragedy or crisis. The point was made that any such plan that does not involve an oil spill on the coast is not doing its job. Some participants took the view that the risk of an oil spill cannot be eliminated due to factors in the QCR and human error.

Views of lifters

Many participants stated that they would only support lifting the moratorium if it could be undertaken safely, the environment were protected and the need for high environmental, including spill protection, standards was noted. With regard to tanker oil spills it was stated that double-hulled vessels would be required universally by 2020 and are expected to be used exclusively in Canada by 2012.

In regard to other practical measures, it was stated that there are now non-oil based drilling muds and zero discharge technologies, including land disposal of cuttings and other wastes.

2.7.2 Scope and Nature of Residual Effects

General

Views of keepers

Because mitigation measures for whales, fish and other organisms are not effective in the view of keepers, there would be significant residual effects on valued ecosystem components (VECs) in the QCR. These participants stated that effects of oil spills and GHG emissions would be significant and last a long time.

Views of lifters

The position of lifters was generally that, based on the record of offshore activities in other jurisdictions there would not be any residual effects after mitigation.

Effects of Seismic Exploration

Views of keepers

It was stated that harm or death to whales, fish and other marine organisms would result in spite of mitigation measures. It was stated that cumulative effects of, among other things, seismic testing, could have lethal and sub-lethal impacts resulting in reduced fish populations.

Views of lifters

Several participants stated that there was no evidence of environmental effects resulting from seismic testing in those locations where it has been conducted. However these participants made no specific comments on residual effects of seismic exploration.

Effects of Oil Spills and Other Potential Impacts

Views of keepers

A large oil spill, it was stated, could not be effectively cleaned up in the QCR, and although oil spills may dissipate fairly quickly in warmer waters and less complex ecosystems, in the QCR oil may linger in a measurable way in decadal or century timeframes.

Thus, the residual effects of oil spills were considered to be disastrous, because a catastrophic oil spill could potentially wipe out wild salmon and other commercial fisheries by destroying their habitat in the QCR, its coastline and estuaries. Cumulative effects of, among other things, chronic oil spills and drilling muds, could, it was stated, have lethal and sub-lethal impacts resulting in reduced fish populations.

The Panel was told of the only partially successful efforts made in 1973 in Alert Bay to clean up after a spill of bunker oil from the vessel Irish Stardust, that birds, fish and wildlife died, and an unclean cove was left for a marine biologist to study, and that took years. It was stated that, a year after the spill in Prince William Sound, Alaska, oil was found on seaweed being picked on Campania Island and that it was possibly from that source. It was stated that 10 years after the Exxon Valdez disaster, herring stocks have not recuperated and inter-tidal areas remain impacted by oil. One party submitted that the First Nation people of Cordova, Alaska are still suffering from the impacts of the Exxon Valdez oil spill, over a decade later. Mention was made of persistent balls of oil in Prince William Sound and of a large proportion of oil from a sunken vessel remaining on the bottom of the ocean.

It was also stated that health effects and tainting of seafood should be included among possible residual effects.

Views of lifters

No specific comments were received on residual effects of oil spills.

Effect of Greenhouse Gas Emissions

Views of keepers

Some participants stated that there would be long term and serious negative effects from climate change caused by GHG emissions.

Views of lifters

Some participants stated that there could be a positive effect on global GHG emissions by replacing other hydrocarbons with gas, and perhaps oil, from the QCR.

2.7.3 Follow-up

Participants did not specifically address follow-up as set out in the ToR.

Participants generally agreed that there were knowledge gaps that would need to be addressed in order to understand or measure any potential environmental or socio-economic effects. These knowledge gaps are summarized in Section 3.3, *Information*.

Effects of seismic exploration

Views of keepers

It was stated that it was necessary to have baseline information, which is currently lacking, to determine if there are effects once activities take place.

Views of lifters

Monitoring would take place as part of the regulatory requirements.

Effects of Oil Spills and Other Potential Impacts

Neither keepers nor lifters made specific follow-up proposals.

Effects of Greenhouse Gas Emissions

Neither keepers nor lifters made specific follow-up proposals.

3. MAJOR ISSUES

Section 2 provided an overall summary of views received by the Panel, a summary of views by region, and summaries of views from First Nations and the Government of B.C. This section summarizes twelve issues that, in the Panel's judgment, were of particular importance to British Columbians who participated in the review process.

The ordering of the subject matter has been guided by the Panel's Terms of Reference whose central considerations are consistent with the Cabinet Directive on SEA. Therefore, potential environmental effects are dealt with first; related issues are considered next, including some related to both environmental effects and socio-economic impacts; and socio-economic impacts follow.

3.1 Environmental Effects

Summary

Environmental effects from oil and gas activities in the QCR were the most common concern in oral presentations and written submissions to the Panel.

Keepers cited many potential impacts, especially effects of seismic testing and of oil pollution, on a number of VECs, including commercially important species, species supporting First Nations food fisheries, ecologically important components, species at risk, migratory birds, sponge reefs found nowhere else in the world, and whales.

Severe QCR conditions and the unique nature of the local ecosystems were advanced as reasons to expect particularly adverse effects from oil and gas activities in the QCR. Climate effects of GHG emissions from oil and gas operations, and from the burning of the fuels produced, formed an important part of many submissions in favour of maintaining the moratorium.

Baseline data and environmental effects information was said to be inadequate, and emphasis was placed on previously identified as well as unrecognized science and other information gaps.

Lifters cited oil and gas activity safely carried out in other areas of Canada, Alaska, and elsewhere in the world, in support of their view that these activities could be carried out with minimal environmental risk even in areas with severe conditions. The RSC and previous review reports were cited as evidence that although there were many identified information gaps, there was no scientific basis for maintaining the moratorium. Mitigation measures were said to be available for potential impacts and to reduce residual effects to acceptable levels.

Effects of Seismic Exploration

Views of keepers

There was frequent reference to and emphasis on potential effects of seismic testing on whales and other acoustically dependent organisms, as well as on the juvenile and adult stages of commercially important fish and invertebrate species. A whale research scientist, who felt the material he provided to the RSC Panel was ignored or misunderstood, expressed concern that the RSC Report underestimated the threat of seismic surveys to cetaceans, and overestimated what is currently known about B.C. cetaceans. Another presenter was concerned that references provided to the RSC Panel, particularly on the effects of seismic activity on marine mammals, had seemingly not been cited in its report and went on to describe two studies about the adverse effects of seismic surveys on whales and on fish. Some emphasized critical knowledge gaps including whale distributions and the effects of seismic surveys on the ears of marine mammals and on behaviour. It was emphasized that not enough is known about safe levels of sound for each whale species. One scientist stated that the sound pressure levels from seismic testing are so high that any animal with hearing capabilities would be impacted and that the decibel levels are too dangerous. He reported that there was reduced use of the Broughton Archipelago by Orcas during the time that acoustic harassment devices were used to scare seals away from fish farms. One published report was cited as concluding that seismic testing causes Gray whales to leave an area, even if it is critical feeding habitat.

One scientist stated there are species of whales in the QCR all year, including Humpback whales that are still considered vulnerable. In the Hibernia project area there is acoustic disturbance and whales move away from drilling sites. Seismic testing was said to affect whale migration. Blasting from constructing a marina in Newfoundland was said to have been followed by finding dead Humpback whales with ear damage.

Knowledge of the marine environment was said to be unsatisfactory. It was stated that after studying Orcas for 30 years it is not known where they go in the winter or what they eat, and that the ecology of numerous other species of whales and other marine mammals using the QCR are even less well understood. Recommendations were made by the whale scientists who made presentations, including: fund studies to know which marine mammals are in the area, when, and where; identify critical habitats and protect and set aside some areas; and make decisions based on sound science. It was added that timing is hugely important; certain assurances are vital; and enforcement needs real teeth.

Mitigation techniques such as placing observers on seismic shoots to warn of the presence of whales and avoiding certain times of the year were said to be ineffective because whales are not always visible at the surface and because for many of the QCR cetaceans their spatial and temporal distribution is not known. "Ramping up" of seismic shoots was also said to be ineffective.

Adult fish and fish and crab larval numbers as well as a variety of other organisms would be affected by seismic exploration; the effects of seismic testing on various life stages of salmon, herring, halibut and of other valued marine resources in the region are seen as particularly hazardous; and seismic activity could pose severe threats to the survival of the sponge reefs. Cumulative effects of seismic testing with other past, existing and future stresses to marine organisms in the QCR were cited as a concern.

One resident who has been in a boat a few miles away from seismic shoots in the past stated the sound is sudden, violent, and very disturbing, and not at all comparable to ship traffic noise. He stated sea mammals and herring are greatly affected, impacting from the top to the bottom of the food chain. The RSC Report was cited regarding the lethal and hearing damage effects on fish and marine mammals within a couple of metres of an air gun detonation and other, undetermined effects at greater distances. It was stated that by no means is everything known about the consequences of seismic exploration for acoustically-sensitive animals, but we already know more than enough to invoke the precautionary principle and keep the present moratorium firmly in place. It was stated that the choice we are facing is clear: oil or whales.

The RSC Report suggests a 20-km buffer for exploratory drilling and a 10-km buffer from shorelines for seismic exploration but this was said not to be enough. For example, there have been observations of large groups of birds feeding on krill more than 45 km from shore. It was stated that the RSC Report also said the oil and gas industry can conduct operations from October through March because nothing will be out there at those times. However, bird feeding is at its highest levels in February when herring are spawning. It was pointed out that a number of species and runs of salmon at various life stages are present in the area in almost all months of the year, so timing seismic shoots when these organisms are not present would not be possible.

Views of lifters

It was stated that seismic work has been carried out in other jurisdictions around the world for decades without negative consequences. It was asserted that seismic exploration is now less intense than in the past, and that seismic exploration might be replaced by improved techniques in the future. Mitigation measures such as avoidance, seasonally, spatially and using observers, and "ramping-up" were said to be successful elsewhere.

Participants not taking a position on the moratorium

A senior official on behalf of DFO stated that the Department and the Government of Canada overall has initiated management measures including seismic standards; ecosystem-based management; protection for species at risk; environmental assessment; and, in support of an ecosystem-based management approach, a peer-reviewed science-based regime for the establishment of ecosystem objectives. These objectives will guide all management decisions within an integrated management planning area. Regarding seismic surveys, the department is developing, in consultation with other government departments and industry, national regulatory guidelines and standards to govern the conduct of seismic activity in the marine environment. These will provide clarity and certainty to the petroleum industry regulators, other users, and the general public on how, when and where seismic activities can be conducted in Canada's oceans.

Risks of Oil Spills and Other Potential Impacts

Views of keepers

Dangerous, long-lasting effects, and widespread extent of oil spills and difficulty or impossibility in clean-up was illustrated with the 1989 Exxon Valdez oil tanker and 1989 Nestucca barge spills, the 1969 Santa Barbara drilling rig blow-out and resulting oil spill, and the 1982 Ocean Ranger disaster. The 2002 sinking of the Prestige oil tanker off the coast of Spain was used as an example that such accidents are not a thing of the past. It was stated that data from the oil tankers owners association showed that in 2003 there were 19 spills worldwide, totaling over 42,000 tonnes. There was reference to a small spill affecting Alert Bay in 1973 and the difficulty in cleaning the spill and salvaging animals. It was stated that there are 24 rigs working off California but that there is now a moratorium on further rigs, as there is in Florida.

Some presenters emphasized that accidents happen in complex systems regardless of technology and the filling of scientific gaps. There was frequent reference to the fact that no one could guarantee accidents would not happen. Human error, compounded by weather and strong shoreward currents, earthquakes and tsunamis, were cited as evidence that there is considerable risk to the environment. It was stated that the question is not if an oil spill will happen, but when. Oil spills, it was stated, would decimate the herring, which spawn all along the coastline, and form the base of the food chain, thus also decimating salmon and other species. Sea otters would be especially affected. Scientific papers were cited and were said to show that oil and oil residues kill, cause deformities, and reduce the number of offspring in fish, including genetic alterations in pink salmon. Shellfish and salmon aquaculture were said to be especially vulnerable.

It was stated that in Prince William Sound, Alaska, after ten years there is still a thick layer of oil under the rocks in spite of millions of dollars spent on cleanup, and what is no longer there has gone into our food chain and the air. One whale scientist reported that the Exxon Valdez spill was responsible for the loss of a killer whale pod.

Participants often cited the statement, from a reference in the RSC Report, in their view saying that if 15% of an oil spill is recovered it is considered a success. One presenter concluded that the moratorium should be maintained until a credible spill response operation can be launched year round, which is not possible in the QCR at present. It was also submitted that due to the low water temperatures in the QCR the evaporation of spills would be minimal.

It was stated that there were more than 100 minor spills reported by the Hibernia Project, and that in Cook Inlet there have been 484 small oil spills over 25 years of oil and gas development. According to one presenter, in Cook Inlet baseline information was not gathered so it is impossible to prove the damage due to oil and gas activity and there is a similar lack of baseline information for the QCR. A U.S. Environmental Protection Agency study was cited as finding the same pollutants in the subsistence fishery of Cook Inlet as in the drilling muds.

It was stated that wave conditions in Hecate Strait make it unsafe for oil and gas rigs, and that it is one of the world's most seismically active areas. The prevailing local currents will drift the oil in to shore; a spill is unavoidable and would affect the coastline for decades. Severe local conditions hazardous to oil and gas operations were cited, including 25-foot tidal ranges and strong currents, frequent hurricane force winds, a funnel-like coastline, and onshore currents said to prevent containment of, and quickly cause contact of oil with unique, marine reserve, and special heritage sites. Waves were said to exceed 22 metres while the industry standard for maximum wave heights withstood by oil rigs was said to be about 15 metres. It was said that a minimum of 72 hours would be required to contain a spill, by which time the oil would be on the beaches, given the nature and size of the Queen Charlotte Basin.

It was stated that local and regional resources, including salmon, are largely in a depleted state. Restoration and enhancement programs are underway. However, oil and gas should not be considered until they are restored. Cumulative effects of oil and gas activities with other past, existing and future stresses to marine organisms in the QCR were cited as a concern, particularly for First Nations seafood resources. Abalone, clams and chitons were much more plentiful in the past and would suffer additionally with oil and gas development. Abalone is no longer available for harvesting as a result of commercial overfishing and may not recover if further stresses are added.

A presenter emphasized that if there were harm caused to the commercial fishing resource by oil and gas activities, it would be difficult to attribute the losses back to them and receive fair compensation as a result.

A representative speaking for a naturalists' federation believed that oil and gas activities would pose too great a risk to ecologically-sensitive areas that provide critical habitat for a large number of species. She added that the biologically-rich QCR is particularly risky for industrial operations because of its extreme weather and earthquakes. Some participants distinguished the B.C. Coast and the enclosed QCR from the ocean environment off Newfoundland where oil production is much farther offshore than it would be in B.C. The statement was repeatedly made that the environmental risk of offshore oil and gas activity is too great.

Some presenters stated that low-level chronic pollution is more damaging than a one-time spill. Others stated that drilling muds and toxic wastes, as well as daily routine spills and other toxic discharges to water and air, would create problems for wildlife.

They were concerned about what they expected would be adverse environmental effects of oil and gas activity on marine birds, mammals, finfish and shellfish, corals and sponges, including glass sponge reefs, and marine vegetation. There can be reduced secondary productivity and toxicity to zooplankton, benthos, and intertidal organisms. Attention was drawn to the ecological pyramid of the Queen Charlotte Basin and the fact that an oil spill affecting the bottom level (mussel beds, eelgrass and kelp beds for example) could easily affect the top level. Frequent pollution from small oil spills and seismic testing, as well as the risk of large oil spills, were said to put the 17 marine species that are already at risk at greater risk of dying and becoming permanently extinct. Other vulnerable components cited included the most important seabird breeding and feeding area in B.C., including internationally important migratory species.

The risk to the environment was said to be unacceptable because of the remarkable biodiversity, number of listed species at risk, and dependence of whales, unique sponge reefs and other animals on this very productive area. It was said to be one of the most productive ocean areas on the planet because of significant nutrient upwelling, freshwater runoff inputs, and currents. It was pointed out that there are important bird and groundfish areas, a lucrative crab fishery, herring spawning areas, whale and salmon migratory routes, and feeding habitats for Gray, Humpback, and killer whales, among others. There was emphasis on the unique and invaluable role of the habitat and food sources in the Queen Charlottes and Hecate Strait areas for innumerable migratory bird numbers and species of international importance. There were reminders that the Queen Charlotte Islands are termed the "Galápagos of the North" because of their unique and diverse biological systems.

The RSC Report was said to be reckless in emphasizing many gaps in knowledge, identifying physical and biological risks, citing the precautionary approach repeatedly, and yet concluding research can be carried out after, rather than before, lifting the moratorium. The RSC Report was criticized for going outside the bounds of science and its terms of reference in their conclusions on the moratorium and for saying we must identify the important species while all species are important. It was also criticized for saying we must prepare for an oil spill, which was said to imply it is expected to happen. There was further comment that it did not have accurate up-to-date climate information, such as the 125-km winds in December 2002, said to be the worst storm of a century here and said to show the climate is changing. On this subject, the RSC Report was criticized for assuming strong regulation to predict and control impacts when the opposite was evident from experience in the QCR and elsewhere.

There was frequent mention that the RSC Report conclusions did not match the reviewed facts and that important potential impacts were omitted. Comments included criticism of the RSC Report conclusion portrayed as meaning that we can proceed with oil and gas activities without having adequate baseline data or adequate information on impacts, The omission of the climate change issue was also mentioned. Concerns were also expressed about science gaps and the timeframe for carrying out marine environmental studies.

Views of lifters

These presenters stated that the 1972 moratorium was aimed at tanker traffic and it was renewed in 1989 due to two oil transportation related spills. In this connection, it was stated that concerns regarding tanker spills will be eliminated with the phasing out of single-hulled tankers by 2020 at the latest. It was frequently argued that marine transportation spills are not necessarily associated with offshore oil and gas activities. In this connection it was stated that the percentage of oil introduced to the marine environment by the offshore oil and gas industry is small compared to other sources and reference was made to the RSC Report citing the National Research Council estimate for 1990-99 that petroleum extraction accounted for 1.2% of petroleum release to the sea in North America.

Oil and gas interest owners stated eight wells had been successfully drilled in the QCR in the late 1960s without observable environmental damage and that there was no evidence of any impacts on fish. Participants noted that the RSC and previous review reports have concluded that there was no scientific basis for keeping the moratorium in the QCR.

Cook Inlet, Alaska was many times identified as the closest analogue to the QCR in terms of the marine environment and marine-related activities. It was pointed out that Cook Inlet is an earthquake zone and that marine structures there also have to withstand ice forces. It was stated that the oil industry has been operating offshore in Cook Inlet for some 40 years, and that the area has a thriving salmon industry and sport fishery.

It was stated by a petroleum producers' association that the oil and gas industry operates in Canada's eastern and northern offshore and there are no operational challenges in the B.C. offshore that have not been dealt with elsewhere. It has found no evidence of impact from its activities on fisheries resources in Atlantic Canada and the industry's spill history is one of outstanding regime compliance. The QCR was described as a very complex and sensitive ecosystem but with environmental characteristics no more severe than Cook Inlet, Alaska, the North Sea or the East Coast of Canada. On behalf of an oil well drillers association, it was stated that since operating conditions on the B.C. West Coast are far less severe than in Atlantic Canada, current equipment standards have significant built-in safety margins.

Another presenter considered that whether in the North Sea, China, the Gulf of Mexico or off Newfoundland, the offshore industry's record of safety is clear and unquestioned. Presenters who wished to lift the moratorium drew attention to the long history of offshore oil and gas activity taking place without harmful environmental effects. For example, in the Gulf of Mexico where it was stated there are 3,500 offshore platforms and in the North Sea where there are 240. In both cases, it was claimed, oil and gas activity coexist with a thriving fishing industry. It was further stated that research in Norway and in the U.K. by government scientists has not identified any adverse impacts on the major fish stocks. It was stated that in the U.K. there are seven producing oil and gas fields within 25 km of the shore.

A presenter saw a progressive improvement in technology, experience and stewardship practices as giving confidence that concerns and issues specific to the Pacific Coast will be addressed and further claimed that in 2002 oil spills in the Newfoundland offshore amounted to one third of a barrel on production of 100 million barrels.

New technology and improved regulation were said to allow for zero-discharge oil and gas platforms and that one such platform is operating in Cook Inlet.

Researchers are pointing out the tremendous marine benefits from offshore oil and gas facilities, for example as habitat for marine life with an additive effect on fish populations.

One lifter introduced, as part of his submission, a fisherman and offshore petroleum board member from Nova Scotia, who reported that there it took a few years before oil and gas activities were modified to protect fishing but that there was good cooperation between the two industries at present. He described certain environmental effects but stated that current installations in the East Coast are not near areas where activities are precluded, and further, they are in areas not rich in biological diversity and areas with rippling sand bottoms. He stated that local, specific species and processes need to be looked at.

Effects of Greenhouse Gas Emissions

Views of keepers

It was stated that the end use of the resource would increase global GHG emissions, that extraction of oil and gas itself creates GHG emissions and, that there would be rising ocean levels from global warming. The central argument in several presentations was that the greatest negative impact of offshore oil and gas development is climate change and associated effects in terms of rising temperatures, Arctic ice melting, increasing sea levels, droughts, heat waves, ice storms and other extreme weather events, together with secondary effects on forests, fisheries and human health. One presenter cited an Environment Canada report as stating that the Kyoto Protocol measures do not go far enough. In one presenter's view, carbon dioxide emissions must be reduced by at least 60% to stabilize the earth's climate. This can only be done by implementing renewable energy technologies and energy conservation and efficiency measures and by reducing the production of fossil fuels. Further inaction, he said, will have dire consequences for the planet.

The costs of global warming are real and staggering, it was argued, and in order to limit carbon dioxide emissions, the extraction of fossil fuels must be capped. Effects already felt in B.C. were said to include the massive pine beetle infestation in the Interior, the catastrophic forest fires of 2003, autumn floods and summer water shortages. While the most immediate impacts of offshore oil and gas activities are on the ocean ecosystem, the most significant impact is climate change, in the view of one environmental group – a subject not addressed by the RSC Report. As a result of climate change, we may expect rising sea levels, more droughts and extreme weather events leading to economic and insurance costs such as from the great Eastern Canada ice storm of 1998.

One presenter stated that the maximum safe global temperature increase is one degree Celsius, and that based on findings of the Intergovernmental Panel on Climate Change and other globally credible scientific bodies, if we continue burning fossil fuels at present levels, this limit will be reached in less than 40 years. Industry already has about four times this amount of carbon in existing reserves. In other words we cannot afford to burn three quarters of the oil, coal and gas already discovered to avoid dangerous climate change.

It was recommended that B.C. should become a world leader in the development and use of alternative energy sources and that it should not develop further fossil fuel supplies.

Views of lifters

It was argued that reductions in GHG emissions should be managed primarily at the point of consumption, rather than at the production end. Another viewpoint was that the quantum of hydrocarbons that would be added to world reserves as a result of development of the B.C. offshore is miniscule and would have no impact on the inevitable shift away from hydrocarbons to alternative energy sources. Several participants noted that merely developing another source of oil and gas does not necessarily add to global fossil fuel consumption. It was also submitted that it was conceivable that if offshore oil and gas were not developed in Canada it may be developed in other locations, in less environmentally friendly ways with more emissions from production and transportation.

It was also stated that natural gas may actually contribute to reductions in emissions of GHGs by replacing other currently used energy sources with greater amounts of GHGs. In the view of a representative of the fuel cell industry, in the next 20-30 years, natural gas will remain a main source of hydrogen for the future of the hydrogen economy.

3.2 Fisheries

Fisheries include First Nations traditional marine resource harvesting for food, feasting and ceremonial purposes; the commercial fishing industry, including harvesting and processing; commercial and recreational sport fishing; and salmon and shellfish aquaculture industries, including farms and processors.

Summary

It was the general view of keepers that the environmental risk to the QCR and its VECs, such as migratory species including salmon, herring and eulachon, halibut, crabs, shellfish, and other fisheries resources was too great to consider undertaking oil and gas activities. First Nations emphasized the importance of fishery resources to their culture and livelihood and their concerns that no risk to them should be incurred as a result of oil and gas activity.

It was the general view of lifters that fisheries were being successfully carried on in many offshore oil and gas jurisdictions throughout the world, including similar ones to the QCR, and that there were no negative impacts.

A commercial fishing organization and a First Nations fishing organization stated that they did not take a position as to whether the moratorium should be kept or lifted.

Views of keepers

Many participants, in particular many First Nations individuals, who have lived all their lives as part of an ocean-going culture and many of whom have fished for a living, expressed strong concerns about the harmful effects of catastrophic oil spills to fish and other marine resources, especially migratory species such as salmon, herring and eulachon. There were many references to the Exxon Valdez spill, as well as to other spills. Some participants with first hand experience in attempted cleanup operations expressed concerns about effects on fisheries resources.

Environmental effects from offshore oil and gas activities cited as concerns were: effects of seismic exploration on fish species, notably crab and fish larvae as well as various lifecycle stages of salmon; risk of oil spills and other pollution causing damage to sensitive fish habitat particularly arising from major accidents which were seen to be inevitable. Concern was also expressed that oil and gas activity would put additional pressures on already stressed populations of salmon, herring, eulachon and other fisheries species.

Socio-economic impacts cited as concerns were that oil spills could significantly affect major commercial fishing species and impact on existing livelihoods, the threat to fishing as a way of life for generations; and threats to First Nations subsistence food gathering that has taken place in the QCR for thousands of years. The additional pressures that would be placed on certain salmon species that have declined to critical levels, potentially resulting in fisheries closures affecting other species or stocks was also mentioned. The threat of tainting to the commercial seafood industry, the expected difficulty or impossibility of attributing losses caused by offshore oil and gas in order to claim compensation and the lack of faith in effective regulation and management of a QCR offshore oil and gas industry based on past and continuing mismanagement of the fishing and forestry industries.

First Nations participants emphasized the central importance of marine resources to their way of life and health in terms of food, feasting, ceremonial as well as commercial purposes. It was stated that a high proportion of workers in the commercial fisheries of the QCR are First Nations and that this is the most important single economic activity for them. They stated that, given these dependencies, they cannot allow these resources to be put at risk. They stated a primary interest was in restoring and enhancing fishery resources that have been decimated.

A presentation in support of keeping the moratorium was made, on its own behalf, by one member of a province wide fish harvesting alliance, prior to the date of that alliance making its written submission. The views of that alliance are summarized below under participants not taking a position on the moratorium.

Views of lifters

Many presenters expressed the view that although fishing was an important activity and industry in the QCR, the offshore oil and gas industry could safely co-exist with it. In support of this view it was stated that strong fishing industries co-exist with offshore oil and gas operations in many other parts of the world. This was asserted in respect of areas such as Eastern Canada, Norway and the U.K. It was stated that government scientists in the latter two countries had not identified harmful effects of oil and gas on major fisheries. Many times Cook Inlet, Alaska, was cited as an area very similar to QCR where offshore oil and gas activities have been taking place for forty years and where there are thriving commercial and sport fisheries. These participants stated that they believed that the risk of a large oil spill, and therefore any potential damage to fisheries, was negligible.

Participants not taking a position on the moratorium

A submission was received from a province-wide alliance of fish harvesters, processors and related service trades and professions in the commercial fishing sector, representing about 90% of capture fish production in B.C. Its member associations were stated to hold widely divergent opinions on the issues related to offshore oil and gas exploration and development, including whether the moratoria should be lifted. This alliance indicated it is prepared to articulate a detailed common position on exactly what research needs to be done, what role the sector should play and how to deal with specific issues in the event the moratoria are lifted. This group was united in making a number of recommendations to the Panel. These recommendations, the representative said, echo and restate those recommendations of the RSC Report that relate to filling information gaps and the participation of the fishing industry in establishing regulations and processes to govern offshore oil and gas activity.

One First Nations fishing organization, although not taking a position as to whether or not the moratorium should be lifted, expressed concerns that the Queen Charlotte Basin is a migratory salmon route as well as a spawning and rearing ground for other species of fish such as halibut, cod and herring. Echoing many other First Nations, it was their view that studies of the unique environment of the QCR must be carried out, and funding must be provided to First Nations for those studies. It was also stated that the federal government was undertaking a flawed review process, and that the RSC Panel chose to ignore First Nations expertise and traditional knowledge, and they have no access to the materials used by the RSC and therefore cannot review them independently.

The Panel did not receive any views from the aquaculture industry.

3.3 Information

Summary

The issue of the sufficiency or insufficiency of baseline, environmental impact, socio-economic and other information regarding decisions on the moratorium was central to many presentations and written submissions. Some keepers were of the view that the information required to make an informed decision on the moratorium is not available and must necessarily be developed prior to such a decision. Further, in the view of some, the information must be developed by First Nations, by governments, and various other parties rather than primarily or exclusively by industry. Lifters often stated that the moratorium inhibits or prohibits the filling of information gaps by either governments or the oil and gas industry, and that this is a primary reason for lifting the moratorium.

Views of keepers

One presenter on behalf of a QCR local conservation society stated that there is not adequate understanding of current environmental conditions, the potential environmental impacts of lifting the moratorium, or the measures necessary to protect the environment. In his view, the West Coast Offshore Exploration Environmental Assessment Panel did a thorough job in 1986, but some important things have changed since then and some of their recommendations have not ever been followed up. An example of changed conditions is the pattern of whale habitat use in Hecate Strait, and information about seabirds, sea lions and fisheries. It was stated that one of the key lessons from the Exxon Valdez oil spill was the importance of good baseline information on environmental resources to detect whether or not there have been impacts, and to what extent.

Several presenters emphasized the lack of information regarding marine mammal ecology, especially about many whale species in the QCR. One presenter stated there is no research on effects of seismic testing on salmon and such studies must be done in the QCR. Another highlighted a similar deficiency regarding effects on whale species but argued it is too dangerous to conduct such work in the QCR and therefore it must be carried out in areas where seismic testing is going on already.

The RSC Report was said to have identified science gaps but not to have contributed any new information and the conclusions were said to be very flawed in that it said that the moratorium could be lifted without having complete baseline data. It was often stated that the RSC conclusions were not consistent with their findings on information gaps.

A QCR First Nation fisheries department stated that the RSC Report's statement that "there is no inherent or fundamental inadequacy of the science or technology, properly applied in an adequate regulatory framework, to justify retention of the B.C. moratorium" is patently false. The presenter stated that such inadequacies do exist and include that there has never been, at any time or place, a demonstration of a seismic technology that does not harm fish, or of oil spill recovery technology with an effectiveness greater than 20%.

On behalf of another First Nation, it was stated that there are many unanswered questions about offshore oil and gas activity. After those answers are available, it was stated, the public should be called on to more properly advise on the moratorium. From that First Nation's perspective, part of the desired follow-up to this public review would be a means to deal with the "information deficit", including provision of funds for First Nations to do their own research.

A Ph.D student and a research associate at a university stated that the RSC Report was deficient in a number of respects, including inadequately identifying the gaps in science relative to oil and gas exploration in the QCR, omitting a number of published references, which these presenters listed, relating to effects of seismic on ocean environments, and drawing incorrect conclusions regarding the effects of seismic testing on marine animals. Two presenters who had studied bird populations in the QCR were of the view that neither the RSC Report nor the Canadian Wildlife Service had used the best and most detailed information available on birds in the QCR

One presenter argued that the RSC Panel information process was incomplete because it did not hold a workshop on Haida Gwaii. Another called into serious question the RSC Report because it was said to have used an inadequate process for gathering traditional knowledge, which was required under its terms of reference.

One presenter suggested a Centre for North Coast Pacific Studies should be set up at the new college at Prince Rupert, rather than at the location of the University of Northern B.C., hundreds of miles inland. There is a need to do adequate baseline studies, to bring in experts from around the world and to bring in traditional and local knowledge. It is important to look at entire cyclical biological processes. There are many volunteer stewardship groups doing excellent work, but the funds must come from government to rebuild the previous levels of diversity and abundance on the North Coast. We are not in a position now to make decisions. The studies should cover both science-based and socio-economic information.

The suggestion that the moratorium inhibits the generation of new knowledge was said to be nonsense, since much of the work must be done independently of industry as there would be obvious dangers if it were up to industry to come up with the money to drive the process.

One presenter stated that if the moratoria are left in place, we are fully implementing the precautionary principle; carrying out the science concurrently with exploration and development is not practicing the precautionary principle. The "Wingspread Statement of 1998", said to have been agreed to by 32 international scientists, was said to be a more rigorous and preferable definition of the precautionary principle than the 1996 *Oceans Act* definition used by the RSC Panel.

A number of submissions focused on the issue of information available to the public, including statements that informed participation requires time, that available information is contradictory and can lead to a variety of conclusions, and that there are enormous gaps in knowledge of the ocean and the cumulative impacts of existing and previous activities. It was stated that it is little wonder that the issue has become as polarized as it is, considering government-funded pro-industry information sessions, the history of contradictory statements from studies commissioned by government, industry, environmental organizations, and the assumptions applied by the RSC Panel. It was stated that the Georges Bank public review was a four-year process between the federal and provincial governments so that by the time the Panel Review came around, they did have an informed public.

Socio-economic information was said to be lacking both in terms of baseline for the QCR and potential socio-economic impacts of offshore oil and gas activities. First Nations stressed the need for them to develop their own socio-economic information, including gathering information directly from First Nations in areas with offshore oil and gas development.

Information from elsewhere on socio-economic effects of offshore oil and gas development was said to be contradictory, unreliable, and not applicable to the QCR. One presenter asked why there was no socio-economic report equivalent to the RSC Report on science. It was stated that the available information from elsewhere did not allow prediction of the distribution of benefits to small rural communities, or of the damage to existing industries, such as fishing and tourism, in the QCR.

Views of lifters

The Government of B.C. stated that it is working and will continue to work with First Nations and coastal communities and other stakeholders to identify their concerns to provide information and the means to address their concerns and interests with Ottawa and our universities to advance the state of scientific knowledge regarding the B.C. offshore and to ensure that knowledge is made more accessible to the public regarding the potential benefits and risks associated with offshore development; with First Nations and other stakeholders to discuss approaches to management and regulation, to fiscal arrangements and benefit sharing, to development of coast-wide approaches, as well as to educational and public information sessions.

The Government of B.C. stated it believes that existing science gaps do not warrant continuation of the federal moratorium. While the state of scientific knowledge for B.C.'s offshore can and should be improved, the responsibility for undertaking or funding the research should fall to the party, government or industry that stands to benefit from the information.

An oil and gas interest owner stated that normally multi-use baseline studies are funded by government, while the onus to produce information is on the proponent when a specific project is proposed.

A presenter on behalf of an economic development group stated that to truly assess the potential environmental effects of offshore oil and gas activities, the communities require real proposals to evaluate and that the continuation of the moratorium prevents this from happening. Baseline work that must be conducted by the oil and gas companies can assist the knowledge base to maintain and grow the wild and cultured seafood sectors in our region.

Lifters were generally supportive of, and agreed with, the conclusions of the RSC and previous review reports.

Many lifters used socio-economic information from other areas of Canada, Alaska, and other parts of the world with offshore oil and gas industries to estimate potential benefits for the QCR if offshore oil and gas is developed. One presenter cited a recent study on the Newfoundland experience.

Participants not taking a position on the moratorium

A senior official on behalf of DFO described information gathering relevant to the moratorium and associated work being carried out by various Government of Canada departments under the *Oceans Strategy*. Work mentioned included identifying critical areas for protection within five years, establishment of marine protected areas, species at risk designations, national regulatory guidelines for seismic activity in the marine environment, developing ecosystem objectives for each activity in the ocean, and commissioned scientific work now being peer reviewed.

A representative of the Parks Canada Agency emphasized that a SEA should take into account potential cumulative impacts of oil and gas activities with other existing and proposed activities in the area, that an integrated coastal management system is required and that science gaps need to be filled and baseline data collected before activities begin.

3.4 Technology

Summary

Improvements in oil and gas exploration, production and transportation technology are a factor in considering the likelihood of adverse environmental effects and assessing the effectiveness of mitigation measures. Keepers have no faith in the ability of technology, despite improvements, to address environmental effects and to provide effective mitigation. Lifters stated that technology is continuously evolving, enabling industry to explore and develop any QCR commercial oil and gas resources without causing significant adverse environmental effects.

Views of keepers

Keepers did not focus specific attention on offshore oil and gas technology. Several participants asserted that it is simply not the case that technical advancements have made exploration and production of oil and gas safe.

The view was expressed that although technology has improved over time it has not eliminated the risks of oil spills. Large spills, blow-outs and accidents, it was stated, are inevitable no matter what improvements there are in technology. It was also stated that spill response technology and equipment are very limited and have not evolved much in the past 30 years.

It was argued that if technology is indeed providing safer methods of extracting and shipping oil, it would make greater environmental and economic sense to wait 20 or even 50 years before lifting the moratorium. A participant asked whether offshore platforms would be needed at all if lateral drilling techniques are perfected. He also asked if there would be less intrusive methods than sonic exploration.

Views of lifters

This group is of the view that modern exploration and production technology, embodying worldwide experience of safe practices in challenging physical environments, can enable the oil and gas industry to explore and develop any commercial resources that may be found without causing significant adverse environmental effects. The expectation was expressed that Canadians would do a better job of drilling than other parts of the world.

An oil and gas interest owner said that it drilled 14 wells offshore B.C. in the 1960's safely and without environmental incident, and in the thirty year period since the 1972 imposition of the Government of Canada moratorium, offshore exploration and production technology has continued to evolve and the safety of offshore oil and gas operations has improved worldwide. The same presenter stated that it could access global experience, knowledge and expertise.

Another interest owner drew attention to the role of technology in greatly improved risk management over the last three decades, instancing the provision of information for drillers about what is going on at the end of the drill string. Other presenters asserted that production operations could be designed so that there are no discharges to the marine environment. The existence since 1994 of one zero-discharge platform in Cook Inlet, Alaska was cited.

A Master Mariner stated that under International Maritime Organization rules of which Canada is a signatory, single-hulled tankers will be phased out by 2020. However, recent studies have indicated this milestone may be achieved by 2012. New tankers are double-hulled, have double separate engines and are escorted. He stated that they are safer than a cruise ship.

Participants not taking a position on the moratorium

A presenter stated that bottom acoustic transponder systems are a revolutionary way of conducting seismic testing, the benefit being that it would be easier to stop the air guns if, for example, an observer noticed something that was in the track.

3.5 Hydrocarbon Resources of the Queen Charlotte Region

Summary

The nature and size of the potential oil and gas resource in the QCR is a consideration in evaluating potential environmental effects and socio-economic impacts. It was agreed there is uncertainty about existing resource estimates and whether the resource is primarily oil or gas. Keepers argued that the resource may be too small to be worth developing and it would have a short life if developed. Oil and gas interest owners considered that the QCR is attractive enough to conduct further exploration.

Several participants cited the Geological Survey of Canada (GSC) estimates (Hannigan et al 2001) where the total hydrocarbon resource of the QCR is put at 9.8 billion barrels of oil and 25.9 trillion cubic feet (Tcf) of gas (median estimates).

Views of keepers

A paper authored by one presenter drew attention to increases in the GSC's estimates since 1983, observed that the GSC took pains to point out that its numbers are no more than a "probabilistic assessment", and also stated that this theoretical oil and gas has not yet been found and may not exist. Another participant expressed the understanding that the Canadian Gas Potential Committee states that the Geological Survey of Canada systematically overstates the amount of reserves there may be off the coast of British Columbia.

Others referred to estimates that the amount of oil and gas would supply the North American market with oil for two months and with gas for six months. That, it was said, does not support any economic argument for lifting the moratorium. The comment was made that, the prospects for an expanding industry were limited and the life of a B.C. offshore industry might not be as long as in some other jurisdictions, because exploration and development could not move outside the QCR.

In respect of transportation of oil, a presenter opined that the trend is away from pipelines and towards an increasing use of tankers.

Views of lifters

An oil and gas interest owner believes the QCR is a good resource development opportunity and that it is attractive to take it to the next step, namely seismic exploration.

Another interest owner drilled eight wells in the area in the 1960s, and these indicated the presence of hydrocarbons, but did not show commercial accumulations of oil or gas. The information about the wells is commercially sensitive and therefore remains confidential. This interest owner shares the view that the QCR has the potential to contain significant resources of natural gas and oil. It believes there is geological prospectivity offshore, the size and scope of which remains to be determined. The Basin has both oil and gas potential and is more likely to be gas prone, but there is a high degree of uncertainty about that. It further stated that unless and until it can conduct further exploration, certainly seismic and likely exploration drilling using current technology, the hydrocarbon resource potential of the QCR will remain highly uncertain.

Some presenters referred to the comparison provided in the RSC Report that the median estimates of recoverable oil and gas from the QCR are broadly similar to estimates for the Jeanne d'Arc basin, offshore Newfoundland, in which two fields are currently productive and a third is in development.

Certain participants indicated that some of the potential environmental effects of offshore activities would be different depending on the extent to which the resource is made up of oil or gas.

The nature of the resource would influence the choice of transportation. Oil and gas interest owners did not provide information as to whether oil produced in the QCR was likely to be moved to shore by pipeline or by tanker. A gas industry presenter stated that it has operated subsea pipelines from the B.C. mainland to the Sunshine Coast and Vancouver Island for more than a decade.

A presenter noted that in Cook Inlet, Alaska, oil is transported by undersea pipeline to a central onshore terminal and then transported by tanker to the refinery. Another presenter thought that oil from the QCR might be trans-shipped at Port Hardy or Prince Rupert into larger tankers or placed into a pipeline.

Participant not taking a position on the moratorium

A professor of biogeochemistry while expressing the view that there are economic reserves in the QCR, said that the amount of oil and gas that is purported to be in the QCR is nothing more than an educated guess, but based on scientific principles. However, the only way you can find oil and gas, he stated, is to drill for it.

3.6 Regulatory Regime

Summary

Participants on both sides of the moratorium decision commonly expressed views on the subject of regulatory regimes, particularly in view of the RSC Report's assumption that "a regulatory board would be set up at arm's length from government and industry to ensure safe and environmentally-responsible development, using current best practice" and its Conclusion 1 that "[p]rovided an adequate regulatory regime is put in place, there are no science gaps that need to be filled before lifting the moratoria on oil and gas development".

Keepers, having regard to the design and operation of regulatory regimes for resource industries in B.C., Canada and elsewhere, stated that regulation cannot fill the science gaps identified in the RSC Report and that, more generally, governments cannot be trusted to provide adequate regulation of an offshore oil and gas industry.

Lifters, who were generally supportive of the RSC Report, claimed that effective regimes have been established in Canada and elsewhere, that Canada has rigorous and comprehensive regulatory processes that can be applied to the B.C. offshore and as a result the QCR environment will be protected.

Views of keepers

Participants stated that the existing Canadian oil and gas regulatory regimes, including onshore B.C., do not operate at arm's length from government, are not particularly rigorous, might not be properly enforced and that there are many infractions by industry. The Pine River oil spill was cited as an example. They argue that current tendencies towards "self-regulation" and "deregulation" raise doubts as to the effectiveness of any future offshore regulatory regime. Concerns were expressed by some First Nations and a number of other participants, including some with first hand experience of coastal resource industries regulated by provincial or federal governments. They stated that the regulation of existing resource industries in B.C., such as fishing and forestry, has failed or been deficient and that the public has little or no reason to trust the provincial or federal government to provide adequate regulation or enforcement of an offshore oil and gas industry. The existing regulatory regimes in Canada and elsewhere, it was stated, fail to protect the marine environment and marine species from the negative impacts of offshore oil and gas. As well, it was argued that the ecosystem of the QCR is not properly understood and therefore a regulatory system cannot be developed that will adequately protect this unique and especially sensitive environment.

In addition, many keepers were of the view that regulatory agencies have been downsized to the point of becoming ineffective. It was stated that there would not be an adequate regulatory regime because both federal and provincial capacity to regulate environmental matters has been absolutely gutted in recent years. Keepers denied that the existing environmental assessment and regulatory systems of either level of government would fill the broad, ecosystem-oriented and population-level science gaps crucial to predicting the impacts in the QCR. They argued that environmental assessments, because they are project oriented, have too narrow a focus and too short a time line to fill the necessary science gaps.

Keepers denied that a regulatory system could be relied on to manage risks considering the many science gaps identified in the RSC Report. They also disagreed with its conclusion that there are no science gaps that need to be filled before lifting the moratorium on oil and gas activity.

Views of lifters

It was stated by an oil and gas interest owner that the key to the successful development of QCR offshore oil and gas reserves will be to have suitable regulations, properly enforced, that will safeguard the environment from the risks involved. The Government of B.C. recognized that an effective regulatory regime is a necessary step in providing public confidence that offshore activities will be conducted in a scientifically sound and environmentally responsible manner.

Lifters argued that effective offshore regulatory regimes have been established elsewhere—in Eastern Canada, Norway, the U.K. and the U.S. federal offshore, particularly Cook Inlet, Alaska. Some pointed out that there are well-defined environmental assessment and regulatory processes for onshore oil and gas development in Canada. They generally agreed with the assumptions and with Conclusion 1 of the RSC Report. Lifters expected that Canadian West Coast offshore oil and gas regulation would be carried out to high international standards. It was stated that Canada has a very robust regulatory environment that is transferable and applicable to the offshore in B.C. The regulatory review and environmental assessment process in Canada, it was argued, is rigorous and comprehensive and will ensure that the environment of the QCR is protected.

A range of potentially applicable regulatory systems for offshore oil and gas in the QCR was discussed. Possibilities included a Pacific Accord, that would set up a regulatory board similar to those established by the East Coast Accords, and application of existing legislation and regulatory bodies.

3.7 Protected Areas

Summary

Keepers and lifters agreed that protected areas for the QCR should be identified and designated, but had differing views on the important considerations that should be taken into account regarding their establishment.

Keepers were of the view that existing and planned protected areas are inadequate in nature and extent. Ecosystem-based management needs to be used in their delineation. Even after the designation of protected areas, oil and gas activities should not be allowed in the QCR because oil spills do not respect boundaries. A connection was also seen between the establishment of protected areas and the implementation of aboriginal and treaty rights.

Lifters stated that the timely establishment of protected areas in the QCR would allow oil and gas activities to be planned appropriately. The cost/benefits of cross-sectors need to be taken into consideration. A fit-for-purpose approach was advocated for planning of uses to be allowed in each specific protected area.

Views of keepers

One presenter doubted much protection is afforded to important areas in the QCR, citing the fact that since the *Oceans Act* was passed eight years ago only one marine protected area was established, the Endeavour Hot Vents. There is still no critical habitat protection anywhere for the 16 endangered species identified by the Committee on the Status of Endangered Wildlife in Canada in the Queen Charlotte Basin. It was stated that the 2002 *Species at Risk Act* is very weak; there is no mandatory time limit for completing or implementing action plans and no mandatory habitat protection, while the key to protecting species at risk is to protect their habitat.

One presenter stated that there has to be a paradigm shift to ecosystem-based management in terms of impact assessment and establishment of protected areas. How does Hecate Strait work? How are we going to know if it is not working the way it was before? It is not just putting a park over here. It is trying to make the whole system work as a system, so that is what is generating both protected areas and how and what you are protecting.

An environmental organization stated that bottom trawling had already impacted 50% of the glass sponge reefs and that the RSC Panel supported protecting the sponge reefs. There was concern that oil and gas activity would affect the Gwaii Haanas and Scott Islands areas. It could take years to find out how much of these areas should be protected.

One view was that when protected areas are designated, it does not mean the other areas in the QCR should be open to oil and gas activities because oil spills do not respect boundaries. This presenter would like to see the entire Pacific Coast of B.C. be an area where oil and gas activities are banned.

It was stated that the choice of marine protected areas in the QCR would unfold through the implementation of aboriginal or treaty rights.

Views of lifters

One of the oil and gas interest owners stated it supported identifying protected areas, since as a resource developer, it needs to know with certainty where special restrictions are prior to making any decision and because early determination of these areas can also reduce conflict with other users. The process to establish protected areas should consider the cost/benefit of cross-sectors prior to making final decisions and there should be full awareness of how limitations from protected areas create problems and reduce value for the petroleum industry. Together, the currently proposed protected areas overlap about one-half of the main Queen Charlotte prospective basin. Adopting a fit-for-purpose approach to protected areas enables specific controls to be put in place where the protection of critical habitat can be achieved at the same time as allowing desired economic activity and also, allows for complete exclusion of all human activity in selected cases where no lesser form of protection is adequate.

Participants not taking a position on the moratorium

Representatives of DFO described the *Oceans Strategy* and the protected areas framework being developed for the Pacific Coast. The principles behind the *Oceans Act* and the *Oceans Strategy* are an ecosystem approach, sustainable development and a precautionary approach. The protected areas framework includes the marine protected area for the Endeavour Hot Vents to the west of Vancouver Island. There is a temporary protection status for part of the sponge reefs while considering if they will be marine protected areas.

A representative of the Parks Canada Agency described the *National Marine Conservation Areas Act* program and the areas chosen under that program: Gwaii Haanas and the Southern Strait of Georgia. For National Marine Protected Areas, ecosystem management is a prime consideration, allowing ecologically sustainable uses but not non-renewable resource exploration and extraction. Of the areas in the QCR, only Gwaii Haanas will go to a feasibility study for this designation. The Department of Environment can create national marine areas to protect species it is responsible for, such as certain birds of the Scott Islands area.

3.8 Alternative Energy Sources

Summary

This was the subject most frequently mentioned by participants. Keepers want governments to promote alternative renewable energy sources and energy conservation as major elements of a sustainable energy economy and make B.C. a global leader in this field, rather than lifting the moratorium and developing offshore oil and gas. Lifters expect renewable energy sources, already important and supported in B.C., to play a future role but stated that fossil energy forms will continue to be required in the transition.

Views of keepers

A recurring theme among these presenters and submitters was that governments should promote the development of alternative energy sources and energy conservation programs as part of a sustainable economy instead of lifting the moratorium and allowing offshore oil and gas to proceed. Among the alternatives, there was particular emphasis on wind power and, to a lesser degree on tidal energy. Geothermal, hydroelectric, solar, wood waste and wave energy, micro power, fuel cells and conservation were also mentioned.

The alternative energy sources theme was argued mainly on the grounds that they are renewable or sustainable whereas oil and gas are not and these energy sources will bring greater economic benefits, especially local and employment benefits. It was said that oil and gas development will likely have a net public cost and that oil and gas should be conserved for non-energy uses. The argument followed that these are modern energy forms whereas oil and gas is "old economy" and consumers need to be "weaned" off their addiction to oil and gas. Further, the production, processing and burning of oil and gas from the QCR would expose the local natural environment to serious risks, contribute to global climate change, cause costly weather events, have adverse human health effects, conflict with Canada's Kyoto commitment and should therefore not take place but be replaced by "green" alternative energies.. Kyoto was perhaps the most frequently mentioned reason for recommending that governments should pursue policies favouring alternative energy forms and energy conservation *(See Section 3.9 The Kyoto Protocol).*

Investment in renewable energy sources was proposed as an alternative use of public funds that were likely to be invested in the future by governments in oil and gas development. Some presenters were critical of the fact that governments are currently financing programs and inquiries respecting offshore oil and gas instead of investing this money in alternative energies. It was stated that even under the best-case scenarios, offshore oil and gas development is unlikely to produce positive returns for the public. Equivalent investment in green energy technologies like wind and tidal energy could produce a far larger stream of revenue and one that would potentially last in perpetuity. It would create more jobs and they would be sustainable jobs in coastal communities, and it would create those jobs now, not in 10 or 20 years.

Oil and gas development, it was argued, is not a first-tier choice for investing public resources. Instead, a compelling case was claimed that alternative energy development yields superior employment results, comparable royalty results and would position this country and this province in an emerging energy market. It is investing in the future. It was advanced that B.C. is well placed to become a world leader in the development of sustainable alternative energy and that governments should invest in those resources rather than developing the QCR oil and gas. It was stated that development of offshore oil and gas would discourage the investment in alternative energy. It was also stated that there is no indication that any fossil fuel revenues from the QCR would be used to promote the development of alternative energy.

The principal argument was to favour alternative energy sources to help deal with climate change. Climate change, it was stated, is real. Enough fossil fuels have been discovered to eliminate life as we know it and we need to get away from this mentality that oil and gas is a solution to anything.

One presenter, opposed to lifting the moratorium, expressed concern about the likelihood of bird kills by currently proposed wind farm development on the Queen

Charlottes. Some proponents of wind energy noted that windmills would be sited with regard to environmental factors including migratory bird flyways.

Views of lifters

A few participants responded to the viewpoint summarized above. One oil and gas interest owner expressed the belief that renewables such as wind and solar will play a role in meeting society's future energy needs, but it will be some time before they can play a significant role in meeting those needs on an economic and therefore sustainable manner. Until we can transition to more renewables, hydrocarbon energy sources, it was argued, will continue to play a large role.

None of the lifters contested the importance of investment in renewable energy forms and some expressed strong support for them. It was noted that B.C. is a North American and global leader in renewable energy thanks to the development of its hydro resources. Attention was drawn to government programs supporting fuel cell research, biomass and other forms of renewable energy. At the same time, it was pointed out that: renewable energy sources by and large cannot presently meet the need for transportation energy, government support is presently available for sources such as wind energy, development is slower than some advocates would like to see due to the market not yet being convinced of economic viability and fossil energy forms such as oil and gas are still going to be required during the expected lengthy transition to a renewables-based energy economy.

Some lifters suggested a linkage between the potential offshore oil and gas industry and green energy. Thus, from the fuel cell industry, the view was expressed that natural gas will be the main source for the hydrogen economy for the next 20 to 30 years. The argument was separately made that if the offshore industry develops in B.C., royalties could be a source of revenue to develop renewables. At least one presenter's support for lifting the moratorium was contingent on its producing a legacy of renewable energy sources and technologies for the people of B.C.

3.9 The Kyoto Protocol

Summary

Many keepers highlighted a conflict between lifting the moratorium and Canada's commitments under the Kyoto Protocol. Lifters considered that if the QCR reserves are gas, it could replace other hydrocarbon fuels that produce more GHGs.

Views of keepers

Many oral presentations and written submissions, including by major environmental organizations, raised this issue. The essential argument was that lifting the moratorium and developing the QCR offshore oil and gas resources is contrary to Canada's commitment to the Kyoto Protocol.

Views expressed by keepers ranged from the view that it would be insane to go ahead with offshore development in QCR having signed the Kyoto Protocol to the statement that it would be extremely hard to reconcile lifting the moratorium with Canada's international obligations under the Kyoto Protocol. The question was asked why the federal government should invest in offshore oil and gas when it will cost us later because we cannot live up to an agreement that we have ratified.

Some participants proposed that the Panel should make a policy recommendation related to the Kyoto Protocol and global climate change, reflecting what it had heard from people on the coast about the consequences of continuing on the path of using fossil fuels.

Views of lifters

Few lifters commented on this issue. Of those who did, one said they did not believe that such action would contradict the Kyoto Protocol at all, because much of the B.C. offshore reserves may be of gas, which could helpfully displace alternative hydrocarbons that produce more GHGs. A second commented that whether Canada meets its Kyoto Protocol commitment is largely independent of any expansion of oil and gas exploration and extraction because the Kyoto Protocol is concerned with burning fuels rather than with producing them.

3.10 Cultural Values

Summary

The Panel heard strong views from First Nations, commercial fishers, and many individuals in the QCR that their culture and lifestyle were very important to them and that they were not willing to risk any negative environmental impacts that would arise from oil and gas activities and they therefore wished to keep the moratorium. At the same time, many other individuals in the QCR said they wanted to continue living there, but the weakened economies with high unemployment levels could not support them and their families and they favoured lifting the moratorium to have the opportunity that offshore oil and gas activities would bring.

Three cultural themes were prevalent: First Nations culture, commercial fishing as a way of life, and the rural coastal lifestyle.

First Nations Culture

First Nations presenters wishing to keep the moratorium described a long-standing historic and spiritual connection to the ocean and its resources. Many talked about a principle or law reflecting connectedness between the land and the ocean, and between themselves and the ocean. This is reflected through a belief in spiritual beings from the ocean and land, as well as through tribal house crests and symbols. For thousands of years, First Nations have depended for food on ocean resources, such as salmon, eulachon, herring, halibut, clams, sea cucumbers, oysters, crabs, geoducks, seaweed, and marine mammals such as seals. Animals, such as the killer whale, are symbols or emblems of First Nations groups, and are embedded in their hereditary system. Since time immemorial, First Nations have traded these resources amongst themselves, and they are regularly used in traditional feasting.

The rights and use of many of these marine resources are constitutionally protected for food, social and ceremonial purposes. Also, many First Nations individuals make their living from commercial fishing and some First Nations are involved in fisheries conservation through stream restoration. It was stated by several that it is First Nations responsibility to care for their territories and natural resources and that these rules are part of their culture. Most of the individual presenters considered offshore oil and gas activities to be foreign to them and expressed fears of an oil spill, which they predicted would destroy their food source and threaten their way of life.

Commercial Fishing as a Way of Life

Many keepers gave views about the need to preserve this lifestyle. Fishing was described as a major industry on the B.C. Coast that has sustained families, both First Nations and non-First Nations, for more than one hundred years. Some presenters described themselves as third generation fishers that had lived in the Queen Charlotte Basin, who wanted fishing to continue so their grandchildren could also fish. One fisher's wife who wanted to keep the moratorium passionately, set out the concern that her husband's livelihood and lifestyle, as well as those of many others, would be put at risk.

The Rural Coastal Lifestyle

Many submitters, particularly those living in the QCR, gave views about the rural lifestyle that they enjoyed living on the B.C. Coast. They described the pristine beauty of the area in which they lived, referring to the fresh air, the abundance of wildlife, and the ocean experience. They wanted to protect these values for future generations to enjoy, because there are fewer places where the environment is being preserved. A number of submitters made reference to the province being promoted as "Beautiful BC", and wanted to keep it that way. Although more keepers than lifters referred to the protection of these values, both sides expressed strong views about how much they valued living in their area.

Several of the presenters residing in Haida Gwaii/Queen Charlotte Islands, described the area as being magical, and some said there was less need for money to take care of basic needs because of the abundance of seafood throughout the year. Many participants from throughout B.C. described the area as a special part of the world that should be preserved in its natural state.

Several lifters expressed their concerns about the economic future of the QCR, referring to the current lack of employment and economic opportunity, which they believed was threatening the coastal rural lifestyle they enjoyed. They were concerned for the future of their families and children who, they stated, were unable to remain in the North due to lack of employment opportunities.

3.11 Social Impacts

Summary

Participants expressed views on matters such as community stability and sustainability; family cohesion; stability and/or instability of relationships; regional in- and out-migration; transient workers; unemployment; job-creation; income disparities; drug use; and crime. Keepers considered that the potential social impacts, including for First Nations, of QCR oil and gas activity are likely to be adverse in terms of social factors and that this is another reason for fostering sustainable, locally-based industries. Lifters stated that the oil and gas industry could provide family-supporting jobs, stem out-migration and help fund better social and other services for coastal communities.

Views of keepers

Some presenters stated that there would be social as well as environmental risks associated with offshore oil and gas development. This offshore opportunity would be a short-term gain with long-term environmental and social cost. They said that little economic benefit would flow to coastal communities and some would suffer socially from the disruptive effects of boom and bust energy development.

Adverse social effects from oil and gas development included the influx of non-local workers and one person mentioned, but did not table, a 1998 report's finding that coastal communities in Louisiana with high populations of transient workers suffer from resulting social problems such as unstable relationships, drug use and high crime rates. Another person, in a similar vein, expressed concern about the potential uneven distribution of benefits among and within communities. Another commented on the social ills, related to high incomes, said to affect a proportion of oilrig workers. Concern was expressed on behalf of a group at one location that offshore oil and gas development would adversely affect the social stability of their coastal areas. In a similar vein, a First Nations presenter stated that she had learned from First Nations in offshore oil and gas areas in Alaska that there had been unfavourable social consequences from that development.

It was stated that one reason for fostering alternative energy sources (see Section 3.8 *Alternative Energy Sources*) is that they can produce the same or more jobs for local communities and economic benefits as oil and gas without the environmental and social risks. It was also stated that governments should promote locally-based industries that are managed sustainably. These would include forestry and secondary processing of forest products, recreational and commercial fishing, tourism, and alternative energy sources.

Views of lifters

An economic development group said that it would only support oil and gas development if risks, including social risks, were absolutely minimized and the local benefits maximized. The social upheaval resulting from a worsening North Coast economy was cited as a risk of not lifting the moratorium and allowing local resource development. These social impacts included crippling unemployment; families being forced to separate; local graduates not being able to find work; and steady out-migration.. Offshore oil and gas, it was argued, could help restore the social and economic well-being of coastal communities and it was stated that the oil and gas industry whether onshore or offshore can provide family-supporting jobs.

A petroleum association said that the industry is increasingly aware of its social responsibilities and an offshore interest owner stated that it strives to make a positive sustainable contribution to the economic and social fabric of the communities in which it operates.

A gas processing and transmission operator claimed that its activities are part of the social fabric in Northeast B.C., that many employees are second generation and that local people are the bedrock of its operations. It also noted that it had brought its resources and expertise to the table when there have been social problems associated with the influx of cash from oil and gas development, although no one member of the community could solve those problems. In this connection, it was mentioned that regional and municipal governments of the Peace River receive $12 million annually under the "Fair Share Agreement" to help them deal with social and other issues for which they are responsible. It was stated that there are strategies for dealing with adverse social impacts, mainly through community involvement.

It was stated that in the last 10 to 15 years, a substantial body of social sciences research has developed regarding the effects of offshore petroleum. A 2002 paper submitted to the Panel concluded from a number of Newfoundland examples that considerable benefits, far outweighing the costs, can accrue to communities as a result of oil and gas activity.

It was a theme of several elected politicians that revenue opportunities from oil and gas development could help to fund better social services, healthcare and education for coastal communities.

3.12 Economic Impacts

Summary

Keepers considered that economic benefits of offshore oil and gas, including government revenues, would be small overall and would not accrue to local small communities. These would be more than offset by the environmental risks and damage to industries such as fishing and tourism, which are present major economic contributors, and to developing businesses such as eco-tourism.

Lifters, basing themselves partly on cited East Coast experiences, expected significant economic benefits including for local communities, particularly if offshore oil and gas reaches the production phase. They considered there would be benefits in terms of improved government services, as a result of increased revenues.

Views of keepers

In sum, keepers considered that the potential economic impacts of offshore oil and gas would be small and more than offset by the environmental risks and damage to industries such as fishing and tourism that would be caused by an offshore oil and gas industry. The view from the small communities, including the First Nations in the QCR communities, was particularly strong that they would be taking all the risks and getting none of the benefits.

The keepers expressed generally pessimistic views on the matter of economic impacts and benefits. Thus, they stated that royalties and taxes flowing to governments would tend to be minor and they expected that a future offshore oil and gas industry would require heavy subsidization in the way that, it was argued, at least one East Coast project has been subsidized. These presenters considered that the proportion of local procurement by the oil and gas industry would be small and especially so at the level of smaller coastal communities. They felt that employment, particularly well-paid specialized employment, would likely go to out of province and out of country workers. The argument was made that NAFTA, particularly Chapter 11 thereof, would constrain the ability of governments to require investors to provide local benefits.

It was stated, in relation to the Georgia Basin, that if we did have offshore oil, it will bring minimal economic benefits. The major work, it was argued, would go offshore or to international contractors. There would be some minor work domestically, but they would go to Alberta-based oilfield support companies. There would be some benefits to the North Coast through support-service activities.

The commercial fishing industry was said to support a large number of jobs on the North Coast including a high proportion of First Nations workers and represent a high proportion of the wages retained on the North Coast. It was stated that high revenues are generated from the commercial and sports fisheries, and aquaculture in the QCB. These economic activities were stated as being threatened by potential offshore oil and gas activities.

Concerns were raised that there would be negative effects on the existing and rapidly developing tourism industry including eco-tourism, said to have great growth potential. Sports diving and kayaking were referenced. Several presenters said that the "Beautiful BC" and "Supernatural BC" image that has great importance for tourism would be damaged by an offshore oil and gas industry.

Views of lifters

Many presenters and submitters argued that there would be significant favourable economic impacts and benefits from oil and gas activity in the QCR. In some instances, this view was supported by presenters having first hand knowledge of the economic impacts of oil and gas activity on the East Coast.

These benefits, it was pointed out, will be particularly important if commercial quantities are discovered and developed, depending on the scale. In this connection, an oil and gas interest owner pointed out that benefits from oil and gas activities are phased over the life cycle of the hydrocarbon resource and they vary in their magnitude, in part depending on the state of local capacity. Benefits tend to be more limited in the early phases of activity and increase during the development and production phases due to the more sustained nature of the operation and the opportunity to build local capacity.

Oil and gas interest owners provided information about favourable economic impacts of their activity elsewhere in Canada in relation to different phases of activity. They included job and business creation for First Nations in a joint venture exploration in the NWT in the 1980s. In the case of an exploration well drilled off Nova Scotia in 2001, 78% of contractors supplied their services from Nova Scotia locations, 13% were based elsewhere in Canada and 9% were from the United States. Where commercial production was established, as with the Sable Offshore Energy Project from 1999 onwards, very large investments are involved, including investments in training and education and 70% of the employment has, it was stated, gone to Nova Scotians. A 2003 report on the socio-economic benefits from petroleum industry activity found that, over the 1999-2002 period, the province's GDP was nearly 15% higher as a result of the offshore industry and the direct and indirect employment impacts of the industry were assessed at 6900 person years in 2002. Lifters stated in regard to government subsidies that only the first project, the Hibernia Project, was subsidized and that this was not the case for subsequent developments.

A presenter with wide international, ocean engineering project experience expressed the view that the socio-economic benefits for B.C. would be enormous if the potential for offshore oil and gas should come to fruition. A presenter on behalf of a business association stated that if the offshore oil and gas industry were to develop, it would not in and of itself transform the B.C. economy but went on to enumerate benefits. It was also stated that oil and gas would contribute to regional economic diversification. Many lifters including economic development organizations stated that offshore oil and gas would generate royalties to the Government of B.C. that would help pay for health education and additional services, reduce overall taxes and contribute to general prosperity.

Other participants asserted that a vibrant offshore industry could make a significant contribution to strengthening local and regional economies in coastal B.C. A representative of the hotel industry association in B.C. and the Yukon stated that they see oil and gas as one of the major means to help expand the tourism industry in northern B.C., that oil and gas is seen as a tourism attraction, and there has been nothing but positive comments with regard to oil and gas at their board table.

Some presenters expected direct benefits at the local community level, depending on the ability to negotiate benefits agreements with oil and gas developers. However, others saw local direct benefits as questionable, but argued that greater wealth creation from offshore oil and gas development allows greater wealth distribution. The subject of benefits was often tied to the struggling economy of the B.C. North Coast and the adverse effects on economic activity, employment and population, and to recession in traditional resource industries. There were comments on the importance of good planning and management to achieve economic benefits.

Other benefits that were referred to included the potential creation of energy- and technology-intensive industries, the creation of "spin-offs" such as specialized education, research and development and improved international competitiveness.

One consultant stated that it was unfortunate that people were being convinced that streets would be paved with gold because that would simply not be the case. Some presenters, including an oil and gas interest owner, highlighted that expectations management is important in the debate about what the economic costs and benefits will be. This oil and gas interest owner emphasized that given the relatively long time frames of offshore oil and gas development, expectations have to be considered in that context.

4. EVALUATION OF THE VIEWS EXPRESSED

This section evaluates the views the Panel heard from British Columbians. The evaluation is presented in three frameworks. First, it provides a general evaluation of the views; second, it evaluates them in relation to considerations that are consistent with the Cabinet Directive on SEA; and third, it does so in relation to the considerations that are consistent with the principles of *Canada's Oceans Strategy*. The considerations referred to are as set out in the ToR.

General Evaluation of the Views

The purpose of the Public Review Panel process was to provide all British Columbians with the opportunity to make presentations and/or make written submissions expressing their views on matters relevant to the moratorium. The Panel designed its processes to be as "user friendly" as possible. It specifically avoided the degree of formality typically associated with a public inquiry or a hearing before an administrative tribunal. The positive result, which justified the approach taken, was that a large number of oral presentations and written submissions were received.

Another result was that, because participants were not "grouped" (that is, participants similar in interest presenting an agreed position), many of the submissions were repetitive. In the circumstances, "grouping" was simply not feasible and repetition was therefore expectable and inevitable. On the positive side, each participant had his or her individual view taken into consideration.

The Panel identified specific issues and invited submitters to address them. However, some submissions simply stated a position for or against lifting the moratorium, without reasons. Other submissions focused only on one or two of the issues identified. All submissions of course reflected "views of British Columbians" as required in the Panel's mandate.

In this connection, some submissions may have been modeled on positions recommended by advocacy groups on either side of the issue. Some submissions simply reproduced website material. Again, all such submissions represented "views of British Columbians".

The positions as to whether or not to lift the moratorium are strongly and inflexibly held. Possibly because of this, many presentations and submissions on both sides were, in the Panel's judgment, exaggerated and/or were founded on selective use of sources. As well, there were few attempts to arrive at compromise positions.

Some submissions on each "side" had a high emotional content, which is reported under Section 2 *Views of British Columbians* and is evident in some of the hearing transcripts and written submissions. Emotions run high on the moratorium issue and need to be conveyed to, and understood by, policymakers as important elements of the public's views.

There were also some striking contradictions between the views of the different "sides" on the moratorium issue. For example, some argued that lifting the moratorium could lead to transforming the B.C. economy. Others were of the view that economic benefits would be minimal and, particularly, would not reach the smaller communities in the QCR.

Persons who might be characterized as "expert witnesses" in a tribunal setting made only a small proportion of the presentations and submissions. Generally speaking, the technical quality of the submissions was not high. However, traditional knowledge and first hand experience, as well as scientific and other published studies in some areas were drawn upon by presenters and in written submissions.

Contrary to the anticipation expressed in the ToR for the RSC Science Review, the RSC Report was not used by most participants as the focus of discussion of science-related matters during the Public Review's hearings phase.

Some presenters would be characterized in a tribunal setting as giving "hearsay evidence". The Panel makes this comment while recognizing that the hearings process for the Public Review Panel was not designed to test the credibility of the views heard.

Because the submissions were not subject to rigorous examination by participants adversarial in interest to each other, the Panel was not left with a body of "tested evidence" such as an administrative tribunal might seek to establish.

The Panel was not in a position to "call evidence", nor did the Panel have access to expert staff to research and provide information to itself or participants. As a result, information was lacking or views were unsupported in several situations. In addition, as noted by some presenters, there was no socio-economic report comparable to the RSC Report on science issues. Therefore, any socio-economic information available to participants was derived from volunteered presentations and their own outside sources.

The Panel notes that there are undoubtedly groups and individuals, having views to express, from whom and for whatever reasons it did not hear. Notwithstanding the Panel's best efforts to provide an accessible process, there may have been barriers to participation. These barriers could include an inability to reach a hearing location, difficulties with written communications, or a reluctance to be identified with views not shared by the majority of a social group or economic sector. Skepticism about the process and "consultation fatigue" might also be reasons for the absence of some views. Several First Nation communities in the QCR did not participate in the Public Review Panel process.

Certain submissions were made by "representative assemblies" (such as municipal councils, trade associations) and by societies (such as environmental organizations) implicitly or explicitly on behalf of the voters, members or supporters of those groupings. These groupings are identifiable in the materials. As indicated in Section 1.4, *Considering the Information Provided to the Panel*, the Panel counted each as a single submission.

Views Evaluated in Relation to Considerations Consistent with the *Cabinet Directive on the Environmental Assessment of Policy, Plan and Program Proposals* [also known as the Cabinet Directive on Strategic Environmental Assessment]

The Panel was to be guided by five considerations, consistent with the Cabinet Directive on SEA, as set out in the ToR.

In the following paragraphs the Panel evaluates the views and opinions heard in relation to these considerations. It does so while minimizing further recapitulation of the views because of the extensive hearing summaries and analysis of major issues already provided.

1. **Public and stakeholder interests and concerns, particularly of those likely to be most affected**

The interests of keepers and of those lifters are essentially similar: both want the natural environment to be protected and both want to secure the well-being of the society and economy, particularly of coastal communities.

There is, however, a polarization of views between the two groups, reflecting fundamental disagreements on how best to secure these interests. Essentially the keepers' concerns are that oil and gas activities are incompatible with securing their interests, while the lifters' concerns are that failure to allow such activities closes the door on a promising social and economic opportunity.

In the Panel's judgment, these disagreements may result from factors such as differences in:

- information sets available to various groups;
- interpretations of shared factual information;
- assessments of the environmental, social and economic risks and opportunities of oil and gas activity;
- assessments of the alternatives to such activity;
- acceptability of various levels of risk relative to the values at risk;
- interpretation of the experiences and/or observations of other resource industries;
- willingness to put confidence in governments and regulatory institutions and their effectiveness; and
- 'philosophies of life' including lifestyle preferences and the relative values placed on environmental protection and economic activity.

First Nations

First Nations' interests are in safeguarding the environment and improving their economy while preserving their culture. While First Nations share similar concerns with other keepers, they have particular concerns as well. They see the need, and state they have the right, to take any resource decisions themselves to protect the future of their communities. Other First Nations concerns include: the process and time schedule of the Panel Review; First Nations' role in it; the resources available to them to contribute to the

Review; the inclusion of First Nations approaches to resource management; and issues of resource ownership and management. Addressing these concerns is for most First Nations a precondition to consideration of the question of whether to keep or lift the moratorium.

2. Scope and nature of potential environmental effects and socio-economic impacts

In some cases, no factual information was provided in support of the views. In other cases the factual bases may have been speculative. Some useful expert opinion and well-prepared briefs came from both sides.

Environmental Effects

Briefly summarizing the views, the keepers consider that the risks to the environment are unacceptable and that regulation and mitigation will not address those risks.

Lifters believe that the potential environmental effects are minimal and that application of modern technology, combined with rigorous best practices regulation, could acceptably mitigate the risks.

The keepers characteristically took the view that in many areas, such as seismic exploration, baseline and environmental effects scientific information is insufficient and that regulatory processes cannot be relied on to fill information gaps or protect the environment.

The lifters tended to be satisfied that available scientific information is sufficient to justify lifting the moratorium. They were prepared to then rely on the effectiveness of regulatory processes to review applications for oil and gas activity on a case-by-case basis.

Regarding scientific information, in general the public hearings did not bring to the Panel's attention any major gaps related to possible oil and gas activity that had not already been identified in the RSC Report. There were however differences in selection and interpretation of, and emphasis on, information on science issues between some participants in the public hearings and the RSC Report.

Many keepers disagreed with Conclusion 1 of the RSC Report that "provided an adequate regulatory regime is put in place, there are no science gaps that need to be filled before lifting the moratoria on oil and gas development". Keepers argued that this conclusion was neither supported by the RSC Report's findings of extensive science gaps nor was it a scientific consideration. This group completely disagreed with the expectation that an adequate regulatory regime would or could be in place. Specific gaps identified included the absence of First Nations traditional knowledge, the most recent information on certain sea mammals, including whales and sea otters, and species and distribution of migratory and internationally important sea birds.

The Panel considers that there would not be a buy-in by large segments of B.C. publics who participated in the Public Review if the moratorium were to be lifted without certain scientific baseline and environmental effects information being available, including that identified in the RSC Report.

Concerning regulation, there are profound differences of view as to the effectiveness of established Canadian regulatory processes (including, in the case of the keepers, regulation of sectors other than oil and gas) and as to expectations about the effectiveness of future processes to regulate activity in the QCR. To some extent, this might be attributable to differences in interpretation of data, but probably to a greater extent it reflects fundamental differences of view and previous experiences with institutions and practices of environmental assessment and natural resource regulation. In the Panel's view, adopting for the QCR a substantially different regulatory system from that provided in existing legislation may address some of these concerns.

As to mitigation measures and technology, there were differences of opinions as to whether best practices, such as advanced well-drilling techniques, zero-discharge production platforms and double hulled tankers would be required and followed. There were marked differences of opinion on the effectiveness of mitigation measures for the potential effects of seismic testing. The Panel considers that attention to these matters would be an important aspect of regulation of any future oil and gas activities.

The Panel observes that the potential effects of oil and gas development and production activity could vary significantly depending in what proportions of oil, gas and other products would be extracted and, in the case of oil, whether transportation would be by pipeline or tanker.

Various participants presented opposing views on the potential effects of offshore oil and gas activities and use on GHG emissions.

Alternatives to offshore oil and gas development were often proposed by keepers and included the development of a variety of non-fossil fuel energy sources.

Socio-economic Impacts

First Nations and other keepers expected harmful social, including cultural, and economic impacts of oil and gas activity. It would likely be harmful to existing and developing industries, such as fisheries and tourism, and discourage the development of alternative energy sources. They also submitted that the positive economic effects would be minimal, particularly outside the larger QCR communities.

The lifters expected generally-favourable socio-economic impacts and cited the potential for indirect benefits resulting from larger government revenues. Some participants wished first to determine the location, size and nature of the resources, and considered that the assessment of socio-economic benefits in the QCR would be speculative until such information is available.

Some views on the potential social impacts tended to be based on hearsay about the alleged effects of existing oil and gas activity, mainly in other jurisdictions. Views of the potential effects in terms for example of effects on out-migration were necessarily speculative. There were no persons or organizations having a current professional social services involvement in the QCR who made presentations or provided written submissions to the Panel.

Estimates of economic impact were rarely related to the timing, nature and scale of possible oil and gas activity. There were warnings about the need to manage possibly excessive expectations. Some of the views expressed were speculative. Some were derived, possibly with insufficient adjustment, from experience in other areas of Canada and in the U.S. Participants in the Panel's process who had taken part in the same study tours to established offshore producing areas appeared to have come away with significantly different information and impressions about such matters as employment effects and impacts at the community levels.

Cultural factors were another area important to many submitters. They were a particularly strong component of First Nations' views. The Panel learned, for example about: the importance placed by some submitters on the maintenance of traditional ways of life such as that afforded by food and commercial fisheries; the value of small communities; land and seascapes unspoiled by industrial activity; the value of maintaining familial and community cohesion in the face of poor job opportunities and resulting out-migration; and, the importance of identifying new resource industries to supplement employment in traditional ones that may be declining.

It was recognized that there is as yet no independent study of the potential socio-economic impacts of oil and gas development with reference to the QCR in general and to the local communities in particular. In the Panel's view this is a significant deficiency.

Keepers raised concerns about the potential for certain NAFTA provisions, particularly Chapter 11, to prevent the Government of Canada from adopting measures to affect the distribution of local benefits. The Panel considers that this is a matter where all participants would benefit from a definitive interpretation by a competent authority.

3. The need for mitigation

If the moratorium were lifted and oil and gas activity were to commence in the foreseeable future, environmental effects requiring mitigation may occur. There was disagreement about mitigation measures relating to the environmental effects of marine seismic testing and oil spills. The Panel is of the view that it would be important to examine the potential effectiveness of these mitigation measures in the particular context of the QCR.

4. The scope and nature of residual effects

In the Panel's view, residual effects will depend on the mitigation measures utilized and their effectiveness in the context of the QCR. Regarding seismic testing there are a number of information gaps that would need to be addressed to assess the residual environmental effects. As to major oil spills, should one occur, it does not appear likely that currently available mitigation measures would be effective in reducing residual effects to insignificant levels.

The Panel did not receive extensive views on geographical areas, within the QCR, which should be set aside for further study.

5. Follow-up

The concept of follow-up, strictly defined, refers to monitoring and evaluation of project-related environmental and socio-economic impact assessment predictions. Given the uncertainty of impact predictions based on currently available information, the Panel is of the view that any attempt to identify follow-up activities at this time would be speculative at best.

In an SEA, the product of the process is a policy decision, in this case to keep or lift the moratorium. The impact analysis evaluation carried out is general and is not easily monitored. However, both keepers and lifters suggested, and the Panel agrees, that certain activities following any decision regarding the moratorium would be beneficial and would advance the Government of Canada's sustainable development goals. Examples of such activities include: the filling of science gaps; the provision, from independent sources, of material to better inform affected stakeholders; the funding for First Nations of efforts to establish their own baseline data and to provide traditional knowledge; the development of collaborative and cooperative processes; the development of an oil and gas regulatory system for the QCR; and, the identification and delineation of marine protected areas.

Views Evaluated in Relation to Considerations that are Consistent with the Principles of *Canada's Oceans Strategy*

The Panel was to be guided by the seven considerations listed in the ToR, which are consistent with the principles of *Canada's Oceans Strategy*.

Few presenters or submitters paid specific attention to these considerations. However, it is possible to broadly evaluate the material placed before the Panel in terms of these considerations, stated in the ToR as follows:

- *Recognizes oil and gas exploration and development as one of many legitimate ocean uses.*
- *Stresses the need to focus on conservation and protection of marine ecosystems that sustain this and other uses.*

Keepers in effect take the position that the need to conserve and protect marine ecosystems overrides, in the case of the QCR, the consideration that oil and gas exploration and development is one of many legitimate ocean uses. Lifters take the position that oil and gas exploration and development be recognized as one of many legitimate ocean uses in the QCR and that such activity can take place while conserving and protecting marine ecosystems.

- *Supports the economic diversification of coastal communities while respecting marine ecosystem health.*

The economic diversification of coastal communities and respect for marine ecosystem health are objectives of many individuals and organizations that expressed views.

Keepers argue that such diversification is better achieved by other sustainable means than by offshore oil and gas exploration and development. Industries and activities such as alternative energy, eco-tourism, restoration of fisheries and others were said to be more compatible with existing industries, would be under local control and would present less risk for marine ecosystem health and existing resource uses.

Lifters tend to emphasize the current depressed economic conditions in many B.C. North Coast communities with attendant social problems and out-migration. They consider that offshore oil and gas offers the potential for significant, valuable economic diversification and social betterment for coastal communities.

- *Provides an opportunity for all ocean users to inform the decision-making process.*

The public hearings did provide an opportunity to inform the decision-making process, in part through this report. In the Panel's view, a collaborative approach among ocean users might incrementally respond to this consideration.

- *Recognizes that coastal zone areas may require different management and environmental considerations than for the offshore area.*

This recognition was present by informed participants on both sides of the issue. However, additional work needs to be undertaken to define the nature and extent of the areas that would require these management and environmental considerations and the Panel agrees.

- *Does not replace industrial sector management, or displace existing divisions of responsibilities, including the need for the environmental assessment and regulatory review of the projects.*

There is agreement on the need for environmental assessment and regulatory review of offshore oil and gas projects.

However, most of the keepers have no confidence that it will be possible to use established processes or create new ones to effectively protect ecosystems in the QCR.

Many of the lifters saw existing environmental assessment and regulatory processes and institutions as providing an appropriate basis for future management of a QCR oil and gas industry.

Another component of the views heard considered that new processes and a regulatory regime including broad participation in some form would be needed to manage a possible future QCR oil and gas industry.

- *Increase understanding of oceans activities/ecosystem interactions and apply adaptive management based on increased understanding.*

There was agreement expressed that increased understanding of oceans activities/ ecosystem interactions and applying adaptive management based on increased understanding are necessary. However, there was disagreement among keepers and lifters as to whether it would be necessary to lift the moratorium in order to achieve this increased understanding.

In the Panel's view, the Government of Canada might consider the status of ocean activities/ecosystem interactions understanding in light of the *Major Issues* section of this Report and the relevant portions of the reports of the RSC and the First Nations Engagement Process.

5. CONCLUSIONS

This section presents the Panel's broad conclusions on certain issues the Government of Canada may consider critical regarding any decision on the moratorium. These conclusions form the basis for the discussion of options that follows in Section 6.

The Panel concludes that the views it heard do not provide a ready basis for any kind of public policy compromise at this time regarding keeping or lifting the moratorium.

It is apparent from the summaries and evaluation that British Columbians hold strong and vigorously polarized views on the issue of oil and gas activity in the QCR. This may have produced adverse effects in some communities.

The focus of the Public Review being mainly on whether to keep or lift the moratorium may have contributed to this polarization. The Panel considers that if the focus were to be shifted to a program involving the gathering and assessment of scientific, socio-economic and other information, it could possibly reduce the degree of polarization and assist in building consensus.

The Panel was left with the impression that there has been little recent dialogue among the various stakeholders on the issue of offshore oil and gas in the QCR. Increasing this dialogue could further assist in building consensus.

A major area of near consensus revealed during the public review was that First Nations' interests and concerns should be addressed and that it is for First Nations to judge whether those interests and concerns have been satisfied.

On the basis of what the Panel heard, ecosystem protection is a widely shared priority. However, there is a fundamental disagreement as to how it could best be achieved: on the one hand by keeping the moratorium, and on the other by lifting it and relying on a modern regulatory regime incorporating best practices.

Also in the area of socio-economic impacts, there is fundamental disagreement between participants on each side of the moratorium issue.

There was near consensus among participants that there are significant information gaps regarding biophysical baseline data and environmental and socio-economic impact information for the QCR, if oil and gas activities were to proceed. However, keepers consider it unsafe to lift the moratorium prior to filling those gaps while lifters are of the view that the only way to fill those gaps is to lift the moratorium.

The Panel considers that disagreements in the areas of ecosystem protection and socio-economic impacts may be in part attributable to the availability of data to the various interests and to the choices made by those interests among the data that were available. The Panel recognizes that basic differences in values, cultural factors and beliefs may have a strong effect on existing disagreements. Notwithstanding this recognition, the Panel believes that information gathering and consensus-building activities would serve to reduce the areas of disagreement.

6. RECOMMENDATIONS

The Panel recognizes that the public hearings comprise only one of three components of the Public Review. It further recognizes that the Government of Canada will draw on other sources of advice to inform any decision it may take on the moratorium. The Panel offers for consideration the following options regarding whether or not the federal moratorium should be lifted for the QCR and other matters relevant to the moratorium.

The Panel does not comment specifically on federal-provincial-First Nations relations aspects of management of any of the options discussed below. The Panel also does not give advice regarding consideration of a program of renewable energy development and energy conservation as an "alternative" to lifting the moratorium because its ToR do not provide for the Panel to address this policy matter. Such a program was proposed and favoured by many environmental groups and individuals.

On whether to keep or lift the moratorium

Many participants, both keepers and lifters, identified knowledge gaps, concerns with the lack of appropriate participation by participants, and process inadequacies in relation to the Public Review. These considerations, and the nature of the views presented prompted the Panel to set out a range of options pertaining to the Government of Canada's potential decision on the moratorium.

In addition to the evident options of keeping (Option 1) or lifting the moratorium (Option 4), the Panel has therefore outlined two additional options (Options 2 and 3). In any consideration of these options, it should be borne in mind that retaining the moratorium would likely be a condition to gaining the active participation of important groups, including the First Nations in the QCR.

In the Panel's judgment, the options for the Government of Canada include the following options, which it proposes for consideration:

Option 1: Keep the moratorium

In the view of keepers, the status quo is the best assurance against the adverse environmental effects and socio-economic impacts they expect will arise from offshore oil and gas activity. A legislative prohibition on oil and gas activity could enhance that assurance, and was desirable in the view of some presenters.

Many urged government not to invest in or consider the oil and gas industry but to pursue, by way of alternative policy, investing in development of renewable energy sources and energy conservation programs; to fund baseline and other ecological studies in the QCR to aid, for example, fishery restoration and in establishing marine protected areas; and to foster sustainable economic development based on existing industries such as tourism, including eco-tourism, and commercial and sport fishing.

In the view of lifters, continuance of the status quo would deny potentially valuable economic and social opportunities, constitute a moratorium on further knowledge about the publicly-owned petroleum resource and, without a change in government policies, on related science in the QCR. In the view of some, maintaining the moratorium constitutes federal policy discrimination against B.C.

Potential reactions to Option 1

Of all those who either took part in the public hearings or made written submissions, 75% supported Option 1 and 23% opposed Option 1. Regarding presenters and submitters from the QCR, 64% supported and 32% opposed; from the other B.C. coastal areas (essentially central and southern Vancouver Island including Victoria and the mainland south coast including Vancouver), 82% supported and 16% opposed; from other communities in B.C. (essentially all of non-coastal B.C.), 57% supported and 43% opposed this option. *(See Table 2-1.)*

Of those that expressed a view to the Panel from the QCR, Option 1 was supported by 478 B.C. individuals and opposed by 216. *(See Tables 2-1 and Table 2-2.)* The six First Nations and four First Nations Organizations that participated in the QCR supported Option 1. It was also supported by the seven environmental groups that participated in the QCR. Three small municipalities in the QCR supported Option 1 and five local governments opposed it. Seven of the nine participating fishing interests supported Option 1 in addition to three tourism operators. This option was supported by two small businesses and opposed by eight. Opposition to this option was expressed by five area chambers of commerce, two oil and gas interest owners and a hotel association.

Of those who expressed a view to the Panel from the B.C. coastal areas outside of the QCR, Option 1 was supported by 1,923 B.C. individuals and opposed by 216. This option was supported by one First Nations and one First Nations organization and was opposed by two First Nations in the other coastal areas. This option was supported by twenty environmental groups and four fisheries interests. This option was opposed by ten local governments and nine of the ten participating chambers of commerce from this area. This option was also opposed by five economic development groups and one board of trade. Support for Option 1 was also expressed by ten tourism operators and eight small businesses while opposition was expressed by two and twenty-two respectively. Option 1 is opposed by the Government of B.C.

Of those that expressed a view to the Panel from other communities in B.C., Option 1 was supported by 245 individuals and opposed by 141. *(See Tables 2-1 and Table 2-2.)* This option was supported by the two environmental groups and one fisheries interest participating from other communities in B.C. This option was also opposed by 12 local governments from this region.

Reactions on both sides of the issue would probably be greater were the moratorium to be legislated.

Regarding the options that follow, the Panel expects that those options involving any lifting of the moratorium, i.e. Options 3 and 4, to be opposed by and favoured by the converse of the groups described above.

Option 2: Keep the moratorium or defer the decision on it while undertaking a suite of activities, alone or collaboratively with others, and subsequently review it either at a predetermined or at an indefinite future time.

As to the activities, they could be designed, in part, to fill knowledge gaps and be used to build consensus among stakeholders on issues related to the moratorium. Based on views the Panel heard, these activities might include any of the following:

- identify and address First Nations issues;
- conduct or fund baseline and other biophysical studies to fill knowledge gaps regarding, for example, the ecosystem and populations of organisms, especially Valued Ecosystem Components (VECs). Such gaps may be identified from the RSC and previous review reports; other published reports; federal and provincial government experts; traditional knowledge; academia; and other relevant sources;
- conduct or fund studies to fill gaps regarding socio-economic conditions, focusing particularly on QCR communities, including First Nations, most likely to be affected by any future decisions on the moratorium and potential impacts of oil and gas activities;
- consider whether to implement a specific regulatory system for oil and gas activities in the QCR, within or going beyond the existing body of legislation identified in the Panel's ToR, and how that regime might be managed;
- identify and delineate marine areas to be protected in the QCR; and
- define oil and gas tenure and fiscal arrangements for the QCR.

As to parties involved in the conduct or supervision of these activities, they may be carried out by:

- the Government of Canada;
- a combination of the Government of Canada, the Government of B.C. and First Nations; or
- a wider group including these parties plus local governments, business and industry including oil and gas interest owners, non-governmental organizations including environmental groups, fishing interests, and other interested publics.

The processes for involvement could range from stakeholder liaison where the Government of Canada retained the central responsibility to a variety of joint, mediated, advisory or decision-taking formats.

On several occasions, the view was expressed that whether to keep or lift the federal moratorium is a public policy decision of the Government of Canada not founded only on scientific issues. The Panel concurs with this view. Therefore, this consideration should influence the choice of activities to be included, process used, and the involvement of various parties in Options 2 or 3. These choices may affect the potential outcomes and the speed of progress to a conclusion.

At some point considered appropriate by the Government of Canada, and having taken into account progress and results of the above activities, a decision could be taken regarding the moratorium.

Potential reactions to Option 2

The Panel received some helpful views bearing on Option 2, although it was not an option on which it specifically asked for views. Some of keepers may oppose this option because it does not contain the certainty of Option 1. As well, some of the lifters may be opposed because it does not provide certainty as to if or when the moratorium would be lifted. They would, however, oppose it less than Option 1. Option 2 might have the potential advantage of attracting the support of some parties from both sides of the issue, depending on the design and content of the process.

Option 3: Lift the moratorium and undertake a suite of activities prior to accepting any oil and gas activity applications.

This option is similar to Option 2 above in terms of:

- activities to be carried out;
- options for which parties to be involved; and
- processes for that involvement,

but with the following important distinctions:

- the moratorium would be lifted but oil and gas applications would not be dealt with;
- the Government of Canada would be indicating a policy shift, as a result of the SEA, which would be perceived as a signal that offshore oil and gas activities would likely eventually reach the stage of regulatory applications; and,
- the Government of Canada would take into account the results of the suite of activities in deciding whether or not oil and gas applications would be dealt with.

Potential reactions to Option 3

The Panel received some helpful views bearing on Option 3, although it was not an option on which it specifically asked for views.

The keepers would oppose this option. They would do so because it removes what they see as the best assurance against the adverse environmental effects and socio-economic impacts expected to arise from offshore oil and gas activity and because they may presume a predetermined outcome, i.e. allowing applications to be filed. They may also be concerned that having lifted the moratorium, it may be difficult to re-impose it because of raised expectations of industry and others and possible restrictions by international agreements.

Those who have practical understanding of what is required before regulatory applications can be dealt with, and who indicated support for lifting the moratorium, have in many cases identified the activities that could be undertaken under Options 2 and 3 as appropriate.

Option 4: Lift the moratorium and allow applications for exploration

The Panel considers that oil and gas interest owners are unlikely to proceed to make regulatory applications without a resolution of First Nations issues and a degree of certainty regarding such matters as ecosystem protection, regulation, identification of marine protected areas, tenure and fiscal arrangements. These oil and gas interest owners would be more likely to operate where their presence would be welcomed. It is unclear to the Panel as to whether or not these conditions would be satisfied by pursuing Option 4.

The activities identified in Options 2 and 3 are intended to address these conditions.

Potential Reactions to Option 4

Of the various options, Option 4 is the most likely to be opposed by the keepers including First Nations.

It is difficult for the Panel to assess how lifters would react to the relative elements of Option 3 and Option 4.

Other matters relevant to the Moratorium

The Panel heard views on many matters relevant to the moratorium, related to environmental, science and socio-economic issues. These are summarized in Section 3, *Major Issues*. With regard to these factors, the Panel is of the view that, in any future studies related to the moratorium, the following matters should receive particular attention. With regard to science gaps, the Panel's observations and suggestions are made without in any way detracting from the specifics or the generality of the RSC Report's findings and recommendations.

Environmental Effects

Effects of seismic activity on Valued Ecosystem Components, with particular regard to cetaceans

This was an area of special concern to many presenters including several having particular relevant expertise. There are two particular reasons for this concern. Seismic exploration would be the first physical activity to be undertaken if oil and gas exploration were to be permitted, and there is a serious lack of information for the QCR about VECs and the potential environmental effects of seismic testing on those VECs. These information gaps could preclude the ability to predict environmental impacts and assess the effectiveness of mitigation measures.

GHG emissions

Many presenters drew attention to the potential effects of GHG from the exploration, development, production and use of QCR oil and gas on climate change. The majority of participants will expect to see how this consideration is factored into any decision regarding the moratorium.

Information

Many participants were of the view that there are significant information gaps regarding biophysical systems of the QCR and the potential impacts of oil and gas activities on that ecosystem. There also seems to be inadequate information concerning socio-economic impacts of those activities.

Many participants stated, and the Panel agrees, that considerable time and effort will be required to fill these gaps to the extent of being reliably able to predict potential impacts of oil and gas activities in QCR. It would not be reasonable to expect the environmental assessment process nor would it be fair to expect project proponents to address the broad ranging and detailed information required for this purpose. Existing environmental assessment processes are oriented towards dealing with specific project proposals and are more limited than would be required. The activities suggested in Options 2 and 3 are intended to assist in this regard.

Technology

Alternatives to current seismic practices

Several presenters briefly mentioned potential alternatives to currently used seismic exploration technology. Given the concerns noted above, there would be merit in evaluating alternative methods of conducting oil and gas exploration.

The feasibility of oil spill cleanup under varying marine conditions and the outlook for technical improvements in the recovery of spilled oil

A number of participants drew attention to the small proportion, a maximum of 15% as referred to in the RSC Report, of oil from major oil spills that could be recovered under current technology. In addition, the concern about spill cleanup potential was strong because of adverse conditions in the Queen Charlotte Region. This issue should be addressed in particular if the resource is primarily oil.

The feasibility of "zero discharge" oil and gas exploration, development and production operations

Repeated references were made by the keepers to the harmful effects of discharges from offshore drilling and production operations of drilling mud, drill cuttings, other hazardous wastes and produced water and of "routine spills". Other participants called attention to the fact that it is technically possible to minimize or eliminate all non-accidental discharges. The need to minimize or eliminate discharges should be a consideration in any regulatory regime.

Regulatory Regime

Many keepers considered that current Canadian regulation of oil and gas is deficient. They also expressed little faith in any future oil and gas regulatory regime. Therefore, they had no confidence that regulation, other than the moratorium, could adequately protect the QCR. Participants favouring lifting the moratorium took the opposite view. Putting in place an adequate regulatory regime was a key condition of Conclusion 1 of the RSC Report. This also assumed that regulation would be at arm's length from government and industry and would use current best practices.

Should the moratorium be lifted, policymakers need to be aware of this dichotomy of views as to the probable character and capability of a future regulatory regime for B.C. offshore oil and gas activity in the QCR. Policy makers also need to consider whether participants are correct in their assessments of the strengths and deficiencies of existing regimes and in their expectations as to whether or not future regulation can fulfill the role expected of it by the RSC.

Policymakers should also consider whether or not any regulatory system would adequately protect the environment given the state of current knowledge regarding the biophysical system of the QCR.

Policymakers should also consider whether or not any regulatory system established would have the capability to fill those information gaps that are necessary for proper identification and mitigation of environmental effects that are likely to occur for the QCR for each oil and gas activity.

The Government of Canada might want to consider what type of regulatory regime would best suit the particular conditions of the QCR. Options 2 and 3 might be useful approaches to evaluating and promoting consensus regarding the most appropriate regulatory regime.

Protected Areas

Most participants on both sides of the moratorium issue agreed on the importance of defining protected areas. The Panel agrees with this view and considers that the Government of Canada might want to factor in the potential implications of the timing of the definition of protected areas on the other activities set out in Options 2 and 3. Examples are the potential participation by various parties and the availability of results of relevant baseline studies.

Alternative Energy Sources

Alternative and sustainable energy sources were mentioned more frequently than any other single issue. Keepers recommended that these sources be developed rather than oil and gas in the QCR. These participants will expect to see how this consideration is factored into any decision regarding the moratorium.

The Kyoto Protocol

Many participants stated that lifting the moratorium would not be consistent with Canada's commitments under the Kyoto Protocol. These participants will expect to see that these commitments are addressed in any decision regarding the moratorium.

First Nations

First Nations interests and concerns are in some respects distinctive and in others similar to other participants. The Panel considers that those interests and concerns require particular attention. This has been recognized in the outlines of activities and processes proposed under Options 2 and 3.

Cultural Values

Cultural values are significant in the QCR coastal communities. They are of central importance to First Nations and therefore should receive careful consideration in any resource development decisions.

Social Impacts and Economic Impacts

The Panel considers that, based on the interrelationship between the social and economic impacts, and the apparent absence of socio-economic information and analysis specific to the QCR, a focused socio-economic study, as suggested for Options 2 and 3, would be useful in any decision related to the moratorium. Some subjects that might be included in associated analysis could include: impact benefit agreements; financial programs with community objectives; training programs; relative employment from enhancing existing activities such as fisheries and tourism or new industries such as alternative energy sources; and, a legacy fund for oil and gas revenues. It would be advisable to consider any potential constraints imposed by international agreements.

Report of the Public Review Panel on the Government of Canada Moratorium on Offshore Oil and Gas Activities in the Queen Charlotte Region British Columbia

APPENDICES

PUBLIC REVIEW OF THE BRITISH COLUMBIA OFFSHORE OIL AND GAS MORATORIUM

1 BACKGROUND
    1.1 FEDERAL RESPONSE

2 GEOGRAPHIC AREA FOR CONSIDERATION

3 PUBLIC REVIEW PHASES
    3.1 PHASE 1
    3.2 PHASE 2
        3.2.1 PUBLIC HEARINGS
        3.2.2 FIRST NATIONS ENGAGEMENT

1. BACKGROUND

In 1972, the Government of Canada imposed a moratorium on crude oil tanker traffic through Dixon Entrance, Hecate Strait, and Queen Charlotte Sound due to concerns over the potential environmental impacts. The moratorium was subsequently extended to include oil and gas activities. This was followed by a similar prohibition by the Government of British Columbia.

In September 1983, the governments of Canada and British Columbia established the basis for a joint federal-provincial review of the potential environmental and socio-economic effects of oil and gas exploration offshore British Columbia. A five-member environmental assessment panel was appointed and held public information meetings and public hearings throughout northern coastal British Columbia. The Public Review Panel's report contained 92 terms, conditions, and recommendations to be applied to offshore oil and gas activities. However, as a result of the Exxon Valdez oil spill off the Alaskan coast in 1989, the two governments decided to continue the moratoria.

In 2001, the Government of British Columbia commissioned several studies to assess the potential impacts of offshore oil and gas activities. This was followed by a Scientific Panel review, also commissioned by British Columbia, which concluded in its January 15, 2002 report that: *"There is no inherent or fundamental inadequacy of science or technology, properly applied in appropriate regulatory framework, to justify a blanket moratorium on such activities"*. The Panel also concluded that: *"There would be several important things that would need to be done before there could be any expectation of investor interest, public or private, in proposals for exploration or development work in the BC offshore."*

In 2002, the Government of British Columbia provided copies of the studies and the Scientific Panel review report to the Government of Canada and requested that the Government of Canada consider lifting the federal moratorium on oil and gas activities.

1.1 FEDERAL RESPONSE

Any future change by Cabinet to the existing west coast moratorium policy requires a Strategic Environmental Assessment, as a result of a Cabinet Directive in 1996, revised in 1999. An expanded Strategic Environmental Assessment, undertaken as a public review by an independent federally appointed panel, was deemed to be an appropriate means of consulting key stakeholders as to what needs to be determined prior to making a decision on whether or not to lift the federal moratorium. The Government is therefore initiating a public review to assess the science gaps related to possible offshore oil and gas activity, ascertain public attitudes regarding the moratorium and its potential lifting, and engage First Nations to obtain their knowledge and views on the matter. The findings of the public review will serve to inform any subsequent decision on the moratorium by the Government of Canada. The review is not intended to address questions regarding ownership or jurisdiction concerning the study area.

To this effect, on March 28, 2003, the Minister of Natural Resources Canada announced that the Government of Canada will proceed with a review to:

(a) identify science gaps related to possible oil and gas activity, offshore British Columbia (Science Review);
(b) hear the views of the public regarding whether or not the federal moratorium should be lifted for selected areas (public hearings); and,
(c) consult with First Nations to ensure that issues of unique interest to First Nations are fully explored (First Nations engagement).

As announced on May 15, 2003, the Government has selected Mr. Roland Priddle as the head of the independent three-member review panel coordinating the public consultations. Mr. Priddle brings a wealth of knowledge to this task as a result of his long and distinguished career as an energy regulator and policy maker. His previous experience with public hearings of complex issues will help to provide a solid understanding of how the British Columbia public views the federal moratorium on oil and gas activities.

The Government requested that the Royal Society of Canada convene an Expert Panel to conduct a review of science issues arising from possible oil and gas activity, offshore British Columbia, and identify science gaps that may need to be filled prior to, or following, any decision of the current moratorium on such activities. The Science Review is being conducted at arm's length by the Royal Society of Canada on behalf of the Government. The Royal Society of Canada, through its Expert Panel Committee, has a record of delivering highly respected, independent science reviews on behalf of governments and other organizations. In this tradition, the Committee selected Dr. Jeremy Hall to chair the science review panel. On July 30, 2003, the Government announced Dr. Jeremy Hall as the chair of the independent science review panel. The Government also announced at that time that Dr. Diana Valiela and Mr. Don Scott would join Mr. Priddle as public review panel members.

The review process does not constitute a decision on whether or not to lift the moratorium, but rather, provides a means to fully explore the issues and views of British Columbians. All components of the review will take into account legal and regulatory safeguards that would be in place if the moratorium were lifted. Any decision to lift the moratorium for specific areas would not result in activities until a regulatory and fiscal management regime is in place to assess proposed activities, and project proponents satisfy any environmental assessment and regulatory requirements. A regulatory regime would respect the requirements of applicable federal and provincial legislation and policy. Federal legislation which would apply to offshore oil and gas activities includes, but is not limited to: the *Canada Petroleum Resources Act*; the *Canada Oil and Gas Operations Act*; the *Canadian Environmental Assessment Act*; the *Canadian Environmental Protection Act*; the *Canada Oceans Act*; the *Navigable Waters Protection Act*; the *Fisheries Act*; the *Canada Labour Code*; the *Canada Shipping Act*; the *Canada National Marine Conservation Areas Act*; the *Canada National Parks Act*; the *Migratory Birds Convention Act*; the *Species at Risk Act*; the *National Energy Board Act*; the *Transportation of Dangerous Goods Act*; and the *Marine Liability Act*.

The Government is looking to complete the overall review process in the first part of 2004.

2. GEOGRAPHIC AREA FOR CONSIDERATION

The area recommended for review is that of highest estimated petroleum resource potential (see Figures 1 and 2 in Attachment 1).

Figure 1: Sedimentary basins - Canada's west coast region

Figure 1 shows sedimentary basins on the Pacific margin that are identified as prospective for oil and gas. Resource estimates for these basins are documented in the 2001 Geological Survey of Canada Bulletin 564, '*Petroleum Resource Potential of Sedimentary Basins on the Pacific Margin of Canada*', by P.K. Hannigan, J.R. Dietrich, P.J. Lee, and K.G. Osadetz. They estimate that the Queen Charlotte basin contains three to four times the gas resource potential of either the Tofino or Georgia basins and a significant oil resource potential that is not identified for either the latter two regions. Therefore, the review will focus on the Queen Charlotte region.

Figure 2: Resource potential and proposed exclusion zones

Within the Queen Charlotte region a qualitative evaluation of existing geoscience information permits a delineation of areas with greater prospectivity (see Figure 2 in Attachment 1). It should be emphasized that confirmation or otherwise of this delineation requires additional information.

It should also be noted that the Queen Charlotte region encompasses areas that expert federal departments have deemed to be particularly sensitive, as well as, recommended exclusion zones identified in the 1986 West Coast Offshore Exploration Environmental Assessment Panel Report. Some of the latter areas are identified in Figure 2 including:

1. A 20 km coastal exclusion zone as recommended by the 1986 West Coast Offshore Exploration Environmental Assessment Panel to minimize potential impacts on marine life and sensitive near-shore environments from routine operations, or from an oil blow-out.

2. The proposed Gwaii Haanas National Marine Conservation Area (NMCA) in the southern most Queen Charlotte Islands. Parks Canada recommends that this region be excluded from potential exploration and development activities on the basis of a first ministers' MOU (1987), a detailed federal-provincial agreement (1988) and several subsequent federal, provincial and industry actions.[1] The selected areas on the east and south east side of Queen Charlotte Sound and Hecate Strait are regions identified by Parks Canada as potential candidate sites

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[1] Those actions have included completion of a mineral and energy resource assessment and the subsequent voluntary relinquishment of petroleum rights in this area by the companies that held them. Pending establishment of the proposed Gwaii Haanas NMCA (National Marine Conservation Area) reserve, this area will continue to be excluded from potential exploration and exploitation activities for hydrocarbons, mineral and other inorganic matter. Final establishment of the NMCA reserve under the Canada National Marine Conservation Areas Act would confirm this exclusion.

for a central coast NMCA because they are each natural and representative for the region and are deemed to meet the criteria of a 'representative marine area' as outlined in Parks Canada Guiding Principles and Operational Policies (1994).

3. The Department of Fisheries and Oceans Canada has designated the known sponge reef complexes and a ~9 km buffer zone surrounding them as 'no fishing zones'. The Department of Fisheries and Oceans Canada is currently evaluating the need for additional protection or management measures for these areas, including potential designation as Marine Protected Areas.

Furthermore, both the Department of Fisheries and Oceans Canada and Environment Canada are currently considering additional exclusion zones in the Queen Charlotte region based on their understanding of fish, mammal, and bird populations. It is anticipated that the science workshops will critically evaluate the impacts of oil and gas activities on ecosystems outside of the proposed review area.

3. PUBLIC REVIEW PHASES

The review will be divided into two phases. Phase 1 will include the science review as well as preliminary public and First Nations information sessions. This will be followed by phase 2 of the review process, which will consist of public hearings and First Nations engagement.

3.1 Phase 1

In consultation with his colleagues, the Minister of Natural Resources Canada shall appoint an independent Science Expert (Chair). This Science Expert will be responsible for conducting a series of science workshops, evaluating information presented therein and preparing a summary report on the findings. The evaluation will also draw upon previously conducted reviews in British Columbia and relevant experiences from other Canadian and international jurisdictions. The report will be made available to the Minister, the Public Review Panel and also to the general public in advance of the Public Hearings and First Nations Engagement. It is anticipated that the report will focus the discussion of science related matters during Phase 2 of the review. The Science Expert shall be supported by additional scientists with complementary expertise and knowledge (the Science Review Panel).

The independent Science Expert will be responsible for defining the scope of the science workshops, identifying workshop participants and facilitating workshop discussions. The science workshops will allow qualified experts drawn from governments, First Nations (to ensure that traditional knowledge is considered in the science review), industry, universities, advocacy groups, and alike to identify any science gaps which may need to be filled, with a focus on the identification of any gaps which may need to be filled before a decision is made in respect to the moratorium, but also provide a path forward on the science requirements that would precede, or be concurrent with, any exploration or development activity. They will also identify who should be responsible for the completion of identified gaps (i.e. government, industry, etc.) and carefully evaluate risks associated with not filling an identified gap.

Furthermore, the science workshops shall critically evaluate sensitive environments identified by expert departments as well as previously recommended exclusion zones within the proposed review area. Guided by the precautionary principle the science workshops may, as deemed necessary, identify additional areas requiring special management measures in the event of a decision to lift the moratorium. All such areas will be described in the summary report prepared by the Science Expert.

Notwithstanding the above, it is anticipated that the workshops will include issues such as:

1. Natural Hazards and their Potential Constraints on Exploration and Development, including:
   - Earthquakes
   - Seafloor and Sub-seafloor
   - Waves and Tsunamis
   - Weather
   - Wind factors

2. Potential Impacts of Exploration and Development on species habitat, on fish, birds and mammals, on marine protected areas and on marine ecosystems, including:
   - Seismic exploration
   - Exploration Drilling
   - Production

3. Impacts of Potentially Catastrophic Events on species habitat, on fish, birds and mammals, on marine protected areas and on marine ecosystems, including:
   - Blowouts
   - Oil Spills

SCIENCE WORKSHOPS: PRECAUTIONARY APPROACH

It is recognized that there are many definitions and interpretations of the precautionary approach and reasonable certainty. In order to avoid confusion, it is recommended that the participants agree to a common definition. For example, the precautionary approach as defined in the federal *Oceans Act*, "in the face of scientific uncertainty, it is preferable to err on the side of caution".

Further, the absence of full scientific certainty shall not be used as a reason to postpone decision-making. The following four levels of scientific assertion are included for the consideration of the workshop participants.

- There is a complete series of precise and accurate observations, consistent with theory. The margins for error are narrow and enable the statement: ***We are certain that...***
- There is an incomplete series of observations (e.g., few observations from the particular ecosystem and species of interest), supplemented by a completed model / theoretical study. The margins for error-are fairly narrow and enable the statement: ***We are confident that....***
- There is an incomplete, series of observations supported by incomplete (e.g., calibrated but not validated) model / theoretical study. The margins for error are considerable. The statement can be: ***We predict that....***
- There is an incomplete series of observations and either no model exists or the models are not validated or calibrated. The margins for error are substantial, but not as large as for pure chance. The statement can be: ***It is our judgment that....***

Following the science workshops the Science Expert may, as deemed necessary, consult with workshop participants in the preparation of the summary report.

3.2 Phase 2

Following Phase 1, public hearings will be conducted by a three member independent panel (the Public Review Panel) to provide all interested parties with the opportunity to make presentations and/or submit documents expressing their views and opinions on matters relevant to the moratorium (i.e. related to environmental, science, protected areas and/or socio-economic issues). The Public Review Panel is represented by unbiased, well-respected experts appointed by the Minister of Natural Resources Canada in consultation with his colleagues.

Hearings will be held in communities, including First Nations communities, most likely to be affected by future decisions in regard to the moratorium and to potential offshore oil and gas activities. Specific hearing locations will be determined by the Public Review Panel. Following the public hearings, a report will be prepared by the Public Review Panel and submitted to the Minister of Natural Resources Canada.

The Government of Canada will also conduct a First Nations engagement process. Discussions with First Nations will be conducted concurrently with public hearings to ensure that issues of unique interest to First Nations are fully explored. These discussions will be conducted in communities most likely to be affected by any future decision in regard to the moratorium, and will not replace or preclude more detailed consultations if and when there is a decision to lift the moratorium. Following completion of the First Nations engagement process, a report will be prepared and submitted to the Minister of Natural Resources Canada.

3.2.1 PUBLIC HEARINGS

The hearings before the Public Review Panel shall be held after the Science Expert's work is completed and the related report has been made available to the interested public for a reasonable period of time. The review is not intended to deal with questions regarding ownership or jurisdiction concerning the study area.

Prior to the public hearings, the Public Review Panel will conduct information/scoping meetings in communities most likely to be affected by any future decision in regard to the moratorium. These meetings will:

- inform the public about the scope of the review;
- propose and discuss a process for interested parties to participate;
- provide interested parties with sources of relevant background information; and,
- identify the issues for review during the public hearings.

The public hearings will examine the broad environmental and socio-economic impacts of lifting the moratorium in the areas identified. Existing information including (*inter alia*) the outcome of the joint federal/provincial review (1986), and the results of studies and reviews commissioned by the Government of British Columbia, such as the January 15, 2002 Report of the Science Review, will be provided to the Public Review Panel for consideration.

The public hearings shall be conducted in an open, fair and effective manner, ensuring all interested parties are provided with an opportunity to make submissions, to receive a fair hearing, to question each other's representatives and to be questioned by the Public Review Panel.

Participants who are unable or unwilling to directly engage with the Public Review Panel may voice their views and opinions by way of email and letters. However, the Panel will give less weight to submissions that are not offered for examination in the public forum.

Following the hearing phase, the Public Review Panel shall prepare and submit a report to the Minister of Natural Resources Canada. This report shall outline the work carried out by the Panel, summarize the views of interested parties, provide the Panel's evaluation of those views and present its conclusions and recommendations.

The Panel and parties making submissions to it shall be guided by the following considerations, which are consistent with the principles of the *Canada's Oceans Strategy*, that:

- recognizes oil and gas exploration and development as one of many legitimate ocean uses;
- stresses the need to focus on conservation and protection of marine ecosystems that sustain this and other uses;
- supports the economic diversification of coastal communities while respecting marine ecosystem health;
- provides an opportunity for all ocean users to inform the decision-making process;
- recognizes that coastal zone areas may require different management and environmental considerations than for the offshore area;
- does not replace industrial sector management, or displace existing divisions of responsibilities, including the need for the environmental assessment and regulatory review of projects; and,
- increase understanding of oceans activities/ecosystem interactions and apply adaptive management based on increased understanding.

The Public Review Panel and parties making submissions to it shall also be guided by the following considerations that are consistent with the *Cabinet Directive on Strategic Environmental Assessment*, and effectively describe the broad issues that submitters and the Panel should address:

1. **Public and stakeholders interests and concerns.** The analysis should identify for decision-makers the interests and concerns of interested parties, particularly those likely to be most affected.
    - What are the views of the participants?

2. **Scope and nature of potential environmental effects and socio-economic impacts.** The analysis should describe, in appropriate detail, the scope and nature of effects that could arise from lifting the moratorium. The analysis should identify positive as well as adverse effects/impacts.
    - What are the likely effects of lifting the moratorium in selected areas, taking into consideration the existing regulatory safeguards?

3. **The need for mitigation**. The analysis should consider the need for mitigation measures that could reduce or eliminate potential adverse consequences of lifting the moratorium. Mitigation could include conditions under which the moratorium might be lifted.
    - Can identified effects be mitigated and if so, what conditions (if any) should be included in any decision to lift the moratorium in selected areas?

4. **Scope and nature of residual effects**. The analysis should describe, in appropriate detail, the potential effects that may remain, in the short and long term, after taking into account mitigation measures.
    - Are there areas, within the area under review, which should be set aside for further study, if the moratorium is lifted?

5. **Follow-up.** Follow-up measures that should be considered to monitor the effects of any decision to lift the moratorium, or to ensure that implementation of any decision that supports the Government's sustainable development goals.
    - Are there any knowledge gaps and (if so) what further work needs to be undertaken?

3.2.2 FIRST NATIONS ENGAGEMENT

First Nations are encouraged to participate in all stages of the review process -- the science and public reviews, as well as the First Nations engagement process. First Nations engagement will be conducted in order to share information and hear First Nations views relevant to the federal moratorium, and to ensure that issues of unique interest to First Nations are fully explored. This process will be conducted independently of, and in addition to, the Science Review and the Public Review Panel hearings. The First Nations engagement process will be conducted concurrently with the Public Review Panel hearings.

Natural Resources Canada will lead in implementing the First Nations engagement process, working closely with the Department of Justice Canada, the Department of Fisheries and Oceans Canada, Environment Canada and, the Department of Indian and Northern Affairs Canada. A First Nations engagement facilitator, representing the Government, will lead in conducting the First Nations engagement, supported by federal government experts as appropriate.

The main objectives in conducting the First Nations engagement process are to:

- inform First Nations of the overall review process and provide relevant information necessary for a meaningful dialogue;
- seek views regarding interests and concerns of First Nations; and,
- allow for an additional opportunity for First Nations to input traditional knowledge to the overall review process.

The dialogue will be conducted in communities most likely to be affected by any future decision in regard to the moratorium. It will not replace or preclude more detailed consultations if and when there is a decision to lift the moratorium. Under the First Nations engagement process, the focus will be on coastal groups, particularly those First Nations who reside in close proximity to the moratorium area identified in Attachment 1 and those who utilize the marine resources in the area.

Existing information including (*inter alia*), the outcome of the joint federal/provincial review (1986). and the results of studies and reviews commissioned by the Government of British Columbia, such as the January 15, 2002 Report of the Science Review, as well as the summary report forthcoming from the Science Review (described above), will be made available to interested First Nations.

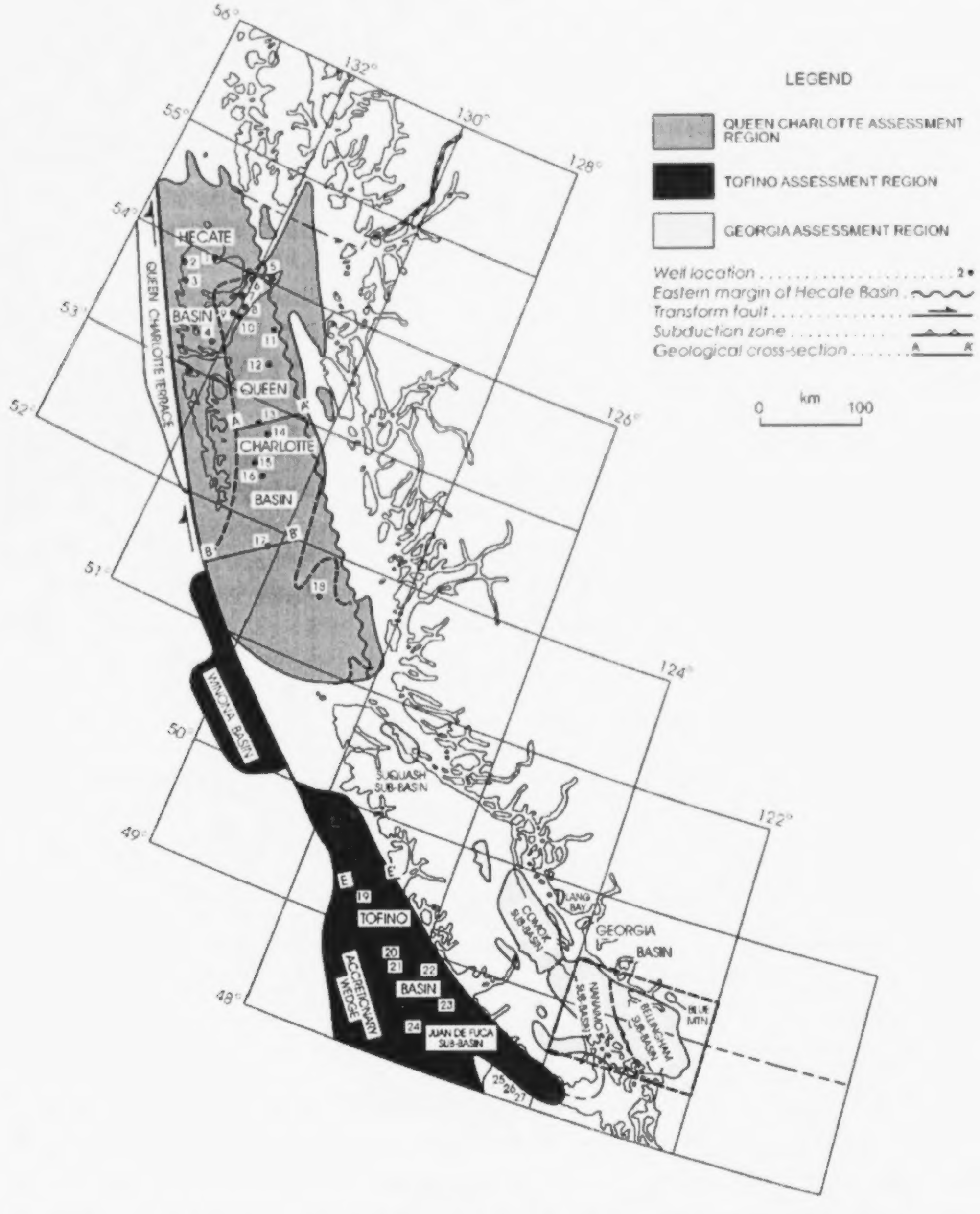
The First Nations engagement facilitator will make initial contact with First Nations communities and hold community-based information sessions in order to disseminate information. Then, First Nations communities will be provided an opportunity to provide their views and raise issues relevant to the federal moratorium through a series of interactive workshops. Continuous dialogue will be encouraged and maintained throughout the process to ensure that the content and context of First Nations expectations, concerns and interests are properly encapsulated. The dialogue will be conducted in an open, fair and effective manner.

Participants, who are unable or unwilling to directly engage with the First Nations engagement facilitator and other Government representatives, may voice their views and opinions by way of email and letters.

Following completion of the First Nations engagement process, the information acquired from the First Nations engagement sessions will be synthesized into a report that reflects the views and concerns expressed by participants. The report will be submitted to the Minister of Natural Resources. This report will provide information to be considered by the Government of Canada in making any subsequent decision on the moratorium.

Attachment 1

Figure 1:Sedimentary basins - Canada's west coast region


LEGEND
QUEEN CHARLOTTE ASSESSMENT REGION
TOFINO ASSESSMENT REGION
GEORGIA ASSESSMENT REGION
Well location 2●
Eastern margin of Hecate Basin
Transform fault
Subduction zone
Geological cross-section A A'
km
0
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56°
55°
54°
53°
52°
51°
50°
49°
48°
132°
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128°
126°
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122°
HECATE
BASIN
QUEEN
CHARLOTTE
BASIN
QUEEN CHARLOTTE TERRACE
WINONA BASIN
SUQUASH SUB-BASIN
TOFINO
BASIN
ACCRETIONARY WEDGE
JUAN DE FUCA SUB-BASIN
COMOX SUB-BASIN
LANG BAY
GEORGIA
BASIN
NANAIMO SUB-BASIN
BELLINGHAM SUB-BASIN
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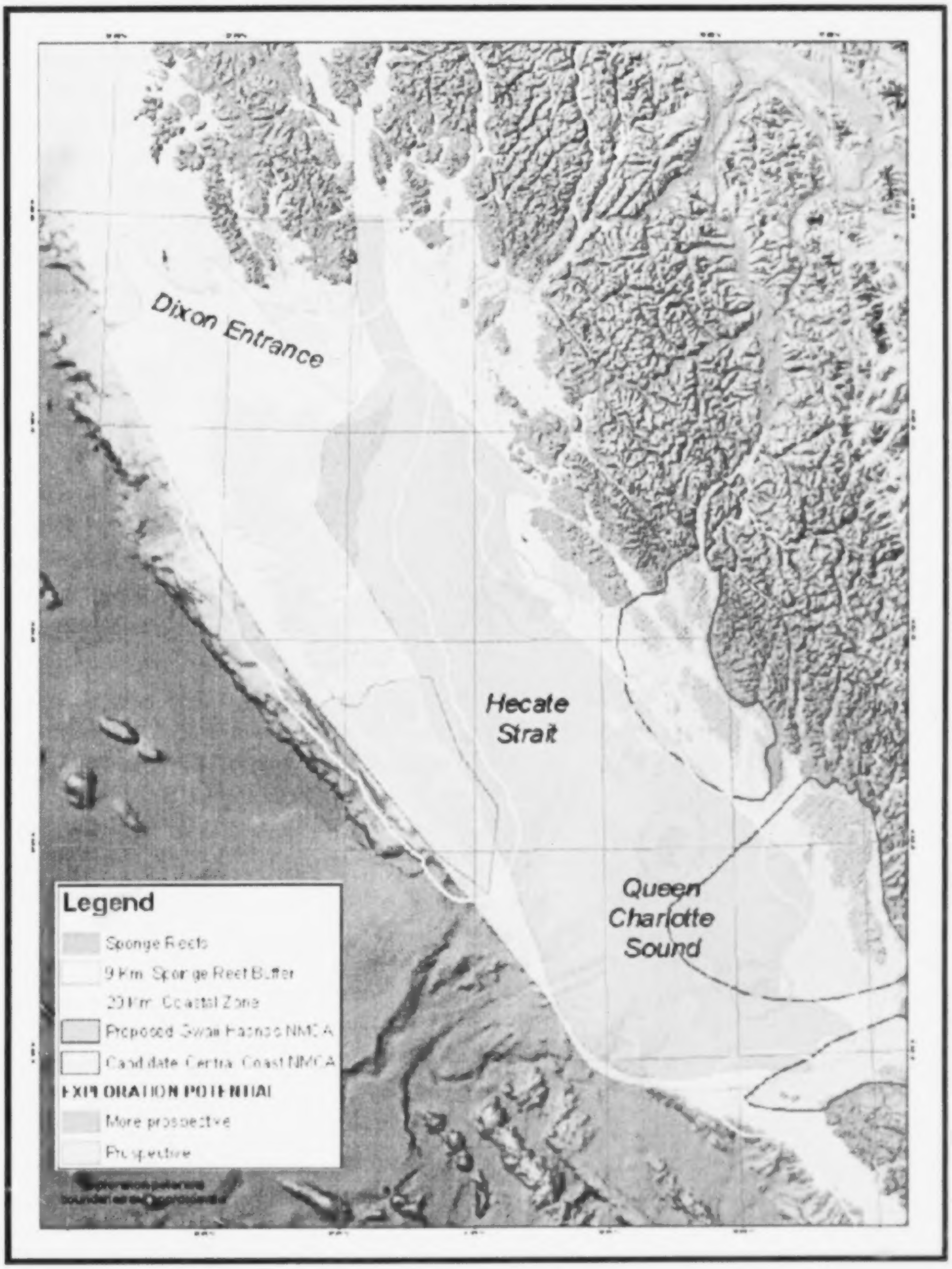
Figure 1. Regional setting and basin outlines of the west coast region of Canada. Assessment regions are shaded. Eastern edge of Hecate Basin modified from Haggart (1993).

Attachment 1

Figure 2: Proposed Exclusion Zones


Dixon Entrance
Hecate Strait
Queen Charlotte Sound
Legend
Sponge Reefs
9 Km Sponge Reef Buffer
20 Km Coastal Zone
Proposed Gwaii Haanas NMCA
Candidate Central Coast NMCA
EXPLORATION POTENTIAL
More prospective
Prospective

APPENDIX A2 Biographies of Panel Members

Biographical notes

Roland Priddle

Roland Priddle chaired the National Energy Board (NEB) from 1986 to 1997 during a period of broad growth and change in the Canadian energy industry which was responding to North American initiatives to deregulate oil and gas. Prior to that, Mr. Priddle was instrumental in Canada's deregulation agreements as Assistant Deputy Minister of Petroleum at Energy, Mines and Resources (now Natural Resources Canada). Since retiring from the NEB, Mr. Priddle has assisted a number of countries in adopting oil and gas regulatory practices that have been used successfully in Canada. Mr. Priddle was inducted into the Canadian Petroleum Hall of Fame in 2001. He holds Master of Arts degrees in economic geography from Cambridge University and in economics from the University of Ottawa.

Diana Valiela

Dr. Valiela practices environmental and natural resources law and provides legal advice to governments and project proponents on environmental impact assessment, permitting, approvals and regulations. Her scientific research and teaching experience includes positions at Rutgers University and the University of British Columbia (UBC). At UBC, she specialized in salmon resource and habitat management, and mariculture industries and techniques. From 1983 to 1991, Dr. Valiela held senior positions at Environment Canada's Pacific and Yukon Region, where she was responsible for programs in research and environmental quality objectives. As a member of the National Energy Board from 1997 to 1999, she took part in public hearings to consider energy project applications. Dr. Valiela is currently a partner at the law firm of Lawson Lundell in Vancouver. Dr. Valiela holds a degree in law from the University of British Columbia, and master's and doctorate degrees in zoology from Duke University.

Don Scott

Mr. Scott, a chartered accountant in public practice since 1982, is currently a consultant in economic development, project management, and strategic planning. His clients include public and private sector entities and First Nations. As Mayor of Prince Rupert, British Columbia, from 1999 to 2002, Mr. Scott co-chaired the Coalition of Resource Communities with three other B.C. mayors. As well, he co-chaired the North Coast Land and Resource Management Plan. He also participated on the 2001 Offshore Oil and Gas Design team, which recommended a regional education and consultation process for reviewing the oil and gas moratorium. Mr. Scott has a Bachelor of Arts degree from the University of British Columbia. Among his community activities, he is a director of the Northern Savings Credit Union and is past president and director of the Prince Rupert Rotary Club. In 2003, Mr. Scott was awarded the Queen's Golden Jubilee Medal for service to Canada and the community.

Government of Canada Gouvernement du Canada

Public Review of the Federal Moratorium on Oil and Gas Activities Offshore British Columbia

How to Participate

The sessions or 'hearings' for the Public Review Panel are to listen to your views regarding whether or not the moratorium should be lifted for the Queen Charlotte Region and the associated environmental and socio-economic considerations. You will have the opportunity to make an oral presentation, file a written submission, and to read and comment on the presentations and submissions that are provided to the Panel during the process.

1.0 The Panel Chair will start the session with an opening statement and a short process overview. Panel Chair and Panel Members will moderate the sessions.

2.0 Your views can be provided both **orally** and **in writing**. Both **oral presentations and written submissions will be given equal weight.** All participants in the process, including those who pose questions at the sessions, will be required to provide their names, the names of any organization or groups that they are representing and the name of the community in which they reside.

3.0 Oral Presentations

- Presenters are encouraged to pre-register using the attached registration form.
- It is expected that presentations will be under 15 minutes in length. To cover additional information, a more detailed written submission can be filed before the session or copies can be provided at the session. The presentation can be used to summarize the written submission.
- Registered presenters will appear in the order set out in the schedule for each day.
- Persons in attendance may register during the session to make a short presentation if time permits. It is the responsibility of those wishing to register at the session to attend the beginning of first session in the community to register. Flexibility in the time that can be allowed for the presentation, up to a maximum of 15 minutes, will depend on the time available and the number of people.
- A presenter, group, organization, or entity on whose behalf a presenter is acting will be allowed to make one presentation per location.
- Following each presentation there will be 5 to 10 minute question period for the Panel and individuals, groups or organizations to ask questions to clarify matters addressed in the presentation. The time allowed for questions can be adjusted by the Panel.

4.0 Transcripts

- A written record will be prepared for each session and will be made available following the sessions through the website at www.moratoriumpublicreview.ca and in hard copy at the locations set out in the attached list.

5.0 Written submissions

- Views may be submitted in writing or by e-mail before **Tuesday, 25 May 2004** to the address set out below.
- Copies of written submissions will be made available on the website and in hard copy at the locations set out in the attached list. Only the first copy of copied or form letters will be included.

6.0 Comments

- Once the transcripts and the written submissions are available at the specified community locations an opportunity will be provided to submit any further comments on these materials. Notice of the deadline will be posted on the website and sent directly to those participants who have requested process updates.
- No further submissions will be accepted after the deadline for comments.

7.0 To ensure fairness and the best use of the time available, the Panel can amend the process such as the time allowed for presentations or questioning. The Panel can also reject presentations, submissions, or questions that do not relate to the Panel's mandate. Matters relating to resource ownership and jurisdiction are outside of the scope of the Public Review and will not form part of the report to be prepared by the Public Review Panel for the Minister of Natural Resources Canada.

Please direct written submissions and process questions to:

Scott J. Gedak, Project Manager (sgedak@nrcan.gc.ca)
Public Review of the British Columbia Offshore Oil and Gas Moratorium
Suite 580, 800 Burrard Street, Vancouver, British Columbia V6Z 2V8
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Canada

Public Review of the Federal Moratorium on Oil and Gas Activities Offshore British Columbia

List of Issues

Should the federal moratorium be left in place?
Why?

Should the federal moratorium be lifted?
Why?

Consistent with the *Cabinet Directive on Strategic Environmental Assessment*, submissions and presentations, in responding to 'why', should address:

- Scope and nature of potential environmental effects.
- Socio-economic opportunities and challenges that individuals, communities, the region or the province would likely face.
- The need for mitigation. Can positive effects be enhanced and adverse effects mitigated or minimized – what conditions would be required to do this?
- Scope and nature of residual effects.
- Follow-up measures required to address knowledge gaps.

Public Review of the Federal Moratorium on Oil and Gas Activities Offshore British Columbia

Session Locations and Timing (as of 5 May 2004)

Queen Charlotte City
Queen Charlotte Community Centre
Monday, 5 April 2004, 7 p.m. until 9 p.m.
Tuesday, 6 April 2004, 9 a.m. until noon, and 2 p.m. until 5 p.m.

Masset
Village of Masset Community Hall
Wednesday, 7 April 2004, 9 a.m. until noon, and 2 p.m. until 5 p.m.

Lax Kw'alaams (Port Simpson)
Postponed

Prince Rupert
Crest Hotel
Thursday,15 April 2004, 9 a.m. until noon, 2 p.m. until 5 p.m., and 7 p.m. until 9.p.m.
Friday, 16 April 2004, 9 a.m. until noon, and 2 p.m. until 5 p.m.

Kitkatla
Band Office
Saturday, 17 April 2004, 9 a.m. until noon

Kitimat
Kitimat Rod and Gun Club
Tuesday, 20 April 2004, 7 p.m. until 9 p.m.
Wednesday, 21 April 2004, 9 a.m. until noon, and 2 p.m. until 5 p.m.

Bella Coola
Lobelco Hall
Wednesday, 5 May 2004, 7 p.m. until 9 p.m.
Thursday, 6 May 2004, 2 p.m. until 5 p.m.

Alert Bay
Community Hall
Friday, 7 May 2004, **, 9 a.m. until noon**, 2 p.m. until 5 p.m., and 7 p.m. until 9 p.m.

Port Hardy
Civic Centre
Sunday, 9 May 2004, 2 p.m. until 5 p.m.
Monday, 10 May 2004, 9 a.m. until noon, 2 p.m. until 5 p.m., and 7 p.m. until 9 p.m.
Tuesday, 11 May 2004, 9 a.m. until noon

Vancouver
Sheraton Wall Centre
Tuesday, 11 May 2004, 7 p.m. until 9 p.m.
Wednesday, 12 May 2004, 9 a.m. until noon, 2 p.m. until 5 p.m., and 7 p.m. until 9 p.m.
Thursday, 13 May 2004, 9 a.m. until noon

Sutton Place Hotel
Monday, 17 May 2004, 9 a.m. until noon, 2 p.m. until 5 p.m., and 7 p.m. until 9 p.m.
Tuesday, 18 May 2004, 9 a.m. until noon, 2 p.m. until 5 p.m., and 7 p.m. until 9 p.m.

Victoria
Coast Hotel
Thursday, 13 May 2004, 7 p.m. until 9.p.m.
Friday, 14 May 2004, 9 a.m. until noon, 2 p.m. until 5 p.m., and 7 p.m. until 9 p.m.
Saturday, 15 May 2004, 9 a.m. until noon, 2 p.m. until 5 p.m., and 7 p.m. until 9 p.m.

APPENDIX A4 Clarification of Eligibility

Clarification of Eligibility to Participate

The Public Review Panel has received several requests from individuals and organizations external to and not resident or not having business in the Province of British Columbia, to either make an oral presentation or make written submissions.

The mandate of the public review process regarding the Federal moratorium on oil and gas activities offshore British Columbia is to provide a means to fully explore the issues and views of British Columbians.

The onus is on any party wanting to be heard to demonstrate that its oral presentation or written submission would fall within the mandate of the Panel. The Panel retains complete discretion to decide whether to hear from or accept written submissions from any participant.

British Columbians and those with business in the Province may make presentations or written submissions. A non-resident party not having business in British Columbia may only make a presentation or make written submissions if this information is adopted in its entirety as part of the submission by a resident party or party with business in British Columbia.

Government of Canada Gouvernement du Canada

No. 1, May 2004

Public Review of the Federal Moratorium on Oil and Gas Activities Offshore British Columbia

Further Guidance to Participants

The Public Review Panel has extended the deadline for written submissions to **Tuesday, 25 May 2004.**

The Public Review Panel is encouraged by the number of people wishing to participate by making oral presentations. To allow the Public Review Panel to hear presentations from as many British Columbians as possible the Public Review Panel:

- has added extra sessions in Alert Bay, Port Hardy, Victoria and Vancouver
- encourages presenters to keep within the 15 minute timeframe; and
- requests that a 15 minute, oral presentation be used to highlight a more detailed written submission if required.

It may no longer be possible to accommodate requests made on site to make an oral submission in Vancouver and Victoria. If this unfortunate circumstance occurs, the Public Review Panel encourages these participants to submit their views in writing. Accordingly, the Public Review Panel has extended the deadline for written submissions to Tuesday, 25 May 2004.

The Public Review Panel highlights its earlier decision, as stated in "How to Participate" that oral presentations and written submissions will be given equal weight.

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APPENDIX A6 List of Participants

THE PROVINCE AND THOSE WITH BUSINESS IN B.C.: HEARING PARTICIPANTS

Canadian Association of Oilwell Drilling Contractors; Don Herring

Canadian Association of Petroleum Producers; Rob Carss & Pierre Alvarez

Canadian Federation of Independent Business; Laura Jones & Jeff Nugent

Chevron Canada Resources; Ken Godard & Ted Spearing

Department of Fisheries & Oceans; Sue Kirby & Dan McDougall

Duke Energy; Doug Haughey & Al Ritchie

Government of British Columbia; Boris Tyzyuk and Dr. Alastair Lucas

Government of British Columbia; Jack Ebbels, Deputy Minister of BC Energy & Mines

Government of British Columbia; Richard Neufeld, Minister of BC Energy & Mines

Parks Canada; Steve Oates & Jim Barlow

Shell Canada Ltd; Dave Collyer & Lorraine Goobie

Terasen Gas; Randy Jespersen

THE PROVINCE AND THOSE WITH BUSINESS IN B.C.: WRITTEN SUBMISSIONS

Adventure Professionals Ltd; Constantin von Flotow

Canadian Gas Association; Michael Cleland

Canadian Nature Federation

Fathom Expeditions Inc; Dave German

Government of British Columbia; John van Dongen, MLA

John Les, MLA (Chilliwack-Sumas)

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Moseley, Janice
Phillips, Louise
Royle, Dr. and Mrs. Derek
Tsokas, Stephanie
Willis, Marion & Art

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Braithwaite, Riley
Brazeau, Chris
Brown, Carol
Buholzer, Wayne
Case, Richard
Casier, Ray
Cathro, Kare
Clow, Carrie
Collins, Russ
Com, Mike
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Dixon, Linda
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- Ronaghan, Roy
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- Stone, Corinne
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- Williams, Pauline
- Wilson, Albert
- Wilson, Shirley
- Wollburn, John
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- Padgett, Clarence Wayne
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- City of Prince George; Mayor Colin Kinsley
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APPENDIX A7

Opportunity to comment on information presented to the public preview panel

Government of Canada Gouvernement du Canada

Opportunity to Comment on Information Presented to the Public Review Panel

As set out in "How to Participate" located on the website at www.moratoriumpublicreview.ca, there is an opportunity to comment on the materials that have been presented to the Public Review Panel. These materials comprise the written submissions and transcripts of the oral presentations.

Only comments meeting the following criteria will be accepted. Comments must:

1) Be received no later than **Friday, 6 August 2004**;
2) Provide your name and that of any organization that you are representing;
3) Demonstrate that you are eligible to participate as specified under "Clarification of Eligibility to Participate" on the website at www.moratoriumpublicreview.ca. The most common approach is to provide the name of the community **if you** reside in British Columbia;
4) Identify the specific information that you are commenting on. For information in the transcripts this would include the transcript volume, page, name of the presenter, and the issue or matter that you are providing comments on. For written submissions, this would include the name of the submitter, the date or description of the submission, and the issue or matter that you are providing comments on.

The Public Review Panel will carefully consider comments together with the information that has been posted on the website and distributed to specified locations in hard copy. This is the last step in the process prior to the Public Review Panel preparing and submitting its report to the Minister of Natural Resources Canada.

Comments can be provided either electronically or in writing to the following address:

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